

08:30:29 1
08:30:29
08:30:29 2 SUPERIOR COURT OF THE STATE OF CALIFORNIA
08:30:29
08:30:29 3 FOR THE COUNTY OF SAN DIEGO
08:30:29
08:30:29 4
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08:30:29 5 - - - - -)
08:30:29 6 Coordination Proceeding) JCCP No. 4042
08:30:29 Special Title (Rule 1550 (b)))
08:30:29 7) DEPOSITION OF
08:30:29 In re TOBACCO CASES II)
08:30:29 8) DR. HANSPETER WITSCHI
08:30:29 This document relates to:)
08:30:29 9) VOLUME III
08:30:29 The People of the State of)
08:30:29 10 California, et al. v. Philip) PAGES 417 - 629
08:30:29 Morris, Incorporated, et al.,)
08:30:29 11 Los Angeles Superior Court)
08:30:29 Case No. BC 194217;)
08:30:29 12)
08:30:29 The People of the State of)
08:30:29 13 California, et al. v General)
08:30:29 Cigar Co., et al., San Francisco)
08:30:29 14 Superior Court Case No. 996780;)
08:30:29)
08:30:29 15 The People of the State of)
08:30:29 California, et al. v. Brown &)
08:30:29 16 Williamson, et al., San Francisco)
08:30:29 Superior Court Case No. 996781;)
08:30:29 17)
08:30:29 The People of the State of)
08:30:29 18 California, et al. v. Tobacco)
08:30:29 Exporters, et al., San Francisco)
08:30:29 19 Superior Court Case No. 301631)
08:30:29 - - - - -)
08:30:29 20
08:30:29
08:30:29 21
08:30:29
08:30:29 22 TAKEN ON: Thursday, June 29, 2000
08:30:29
08:30:29 23 TAKEN AT: 550 West C Street, Suite 1440
08:30:29 San Diego, California 92101
08:30:29 24
08:30:29 REPORTED BY: Margaret A. Smith
08:30:29 25 CSR No. 9733
08:30:29 26
08:30:29 27
08:30:29 28

417

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08:30:29 AJL VIDEO
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08:30:29 BY: CHRISTIAN TEARE
08:30:29 Vail, Christians & Associates (619)544-8344 418
08:30:29 1 I N D E X
08:30:29
08:30:29 2 WITNESS EXAMINED BY PAGE
08:30:29 3 Dr. Hanspeter Witschi (Mr. Kodsi) 421
08:30:29 (Mr. Cafferty) 573
08:30:29 4 (Mr. McGuire) 625
08:30:29 5 622
08:30:29
08:30:29 6 E X H I B I T S
08:30:29
08:30:29 7 NUMBER DESCRIPTION PAGE
08:30:29 8 548 Document entitled "Defendants' Amended
08:30:29 Notice of Taking Deposition Duces Tecum

08:30:29	9	of Hanspeter Witschi, M.D.," 6 pages	432
08:30:29			
08:30:29	10	549 Packet of documents under cover letter	
08:30:29		dated June 22, 2000 from John F.	
08:30:29	11	McGuire, Jr., to Mr. Patrick J. Cafferty,	
08:30:29		63 pages	434
08:30:29	12		
08:30:29		550 Packet of documents under cover email	
08:30:29	13	dated 6/22/00 from Hanspeter Witschi	
08:30:29		to TBMP.SDTBMP(SILVA), 72 pages	436
08:30:29	14		
08:30:29		551 Packet of documents under cover email	
08:30:29	15	dated 6/28/00 from Hanspeter Witschi	
08:30:29		to TBMP.SDTBM(SILVA), 44 pages	439
08:30:29	16		
08:30:29		552 Document entitled "Plaintiffs' Amended	
08:30:29	17	and Augmented Expert Witness Designation;	
08:30:29		Declaration of John F. McGuire, Jr., Esq.,	
08:30:29	18	in Support Thereof," 8 pages	441
08:30:29			
08:30:29	19	553 Document entitled "Report of the	
08:30:29		Scientific Committee on Tobacco and	
08:30:29	20	Health," 69 pages	472
08:30:29			
08:30:29	21	554 Document entitled "Exposure to Environmental	
08:30:29		Tobacco Smoke and Risk of Adenocarcinoma of	
08:30:29	22	the Lung," 5 pages	475
08:30:29			
08:30:29	23	555 Document entitled "Multicenter	
08:30:29		Case-Control Study of Exposure to	
08:30:29	24	Environmental Tobacco Smoke and Lung	
08:30:29		Cancer in Europe," 11 pages	475
08:30:29	25		
08:30:29		556 Document entitled "Defendant Expert	
08:30:29	26	Witness Matrix," 6 pages	502
08:30:29			
08:30:29	27	557 Document entitled "Environmental Tobacco	
08:30:29		Smoke and Lung Cancer: A Case-Control	
08:30:29	28	Study in Germany," 10 pages	578
08:30:29			
		Vail, Christians & Associates (619)544-8344	419
08:30:29	1	San Diego, California; Thursday, June 29, 2000; 9:06 a.m.	
09:05:32	2		
09:05:32	3	VIDEOGRAPHER: Good morning. We are on the	
09:05:40	4	record. This is the Volume III deposition of	
09:05:42	5	Dr. Hanspeter Witschi, taken in the matter of the people	
09:05:46	6	of the State of California and City of San Jose in re	
09:05:52	7	Tobacco Cases II. It's in Superior Court, State of	
09:05:55	8	California, County of San Diego, Case JCCP 4042. It's	
09:06:03	9	being held in the offices of Vail, Christians and	
09:06:04	10	Associates, 550 West C -- excuse me. 550 West C Street,	
09:06:14	11	Suite 1440 in San Diego.	
09:06:15	12	Today's date is June 29th, 2000, and the time	
09:06:19	13	is 9:06 a.m. My name is Christian Teare. I'm from the	
09:06:24	14	firm of AJL Video Taping Services, 1919 Grand Avenue,	
09:06:31	15	Suite 2C in San Diego.	
09:06:33	16	The certified shorthand reporter is Maggie	
09:06:35	17	Smith with Vail, Christians and Associates.	
09:06:38	18	Video and audio recording will be taking	
09:06:41	19	place at all times during this deposition unless counsel	
09:06:44	20	have specifically requested to go off the record.	
09:06:45	21	If counsel would please introduce themselves,	
09:06:49	22	the reporter will swear in the witness.	

09:06:51 23 MR. KODSI: Neil Kodsi, representing the R.J.
09:06:55 24 Reynolds Tobacco Company.
09:06:57 25 MR. CAFFERTY: Patrick Cafferty representing
09:07:01 26 Philip Morris Company.
09:07:03 27 MR. LENDRUM: Jeffrey Lendrum on behalf of
09:07:06 28 Liggett Group.
Vail, Christians & Associates (619)544-8344 420
09:07:08 1 MR. HOLTMANN: John Holtmann for Philip
09:07:08 2 Morris.
09:07:08 3 MR. McGUIRE: John McGuire for the plaintiffs
09:07:10 4 American Environmental Protective Agency.
09:07:15 5
09:07:15 6 Dr. Hanspeter Witschi,
09:07:15 7 BEING FIRST DULY SWORN, TESTIFIED AS FOLLOWS:
09:07:15 8
09:07:15 9 MR. McGUIRE: Let me correct myself. It's
09:07:28 10 the American Environmental Safety Institute.
09:07:31 11 MR. KODSI: I was wondering if there was a
09:07:33 12 new client.
09:07:34 13 MR. McGUIRE: There is, but we we're not
09:07:39 14 ready to disclose that yet.
09:07:40 15
09:07:40 16 EXAMINATION
09:07:40 17 BY MR. KODSI:
09:07:40 18 Q Good morning, Dr. Witschi. How are you doing
09:07:43 19 this morning?
09:07:43 20 A Fine. Thank you.
09:07:43 21 Q Although we now are I guess old friends, and
09:07:45 22 we've met a few times, let me reintroduce myself for the
09:07:48 23 record. I'm Neil Kodsi and representing the R.J. Reynolds
09:07:50 24 Tobacco Company. You understand that this is a
09:07:54 25 continuation of your April 10th and May 3rd depositions
09:07:56 26 that you have given in this case, correct?
09:07:58 27 A Yes.
09:07:58 28 Q Okay. And although we've gone through kind
Vail, Christians & Associates (619)544-8344 421
09:08:00 1 of the preliminary instructions, just to remind you that
09:08:03 2 if at any time you feel you need a break, just please let
09:08:06 3 me know. If at any time you don't understand a question
09:08:08 4 that I've asked, you know, please ask me to clarify it. I
09:08:12 5 ask that you not speculate when answering a question.
09:08:14 6 And let me just ask you have you brought any
09:08:17 7 documents with you today?
09:08:17 8 A No.
09:08:18 9 Q Okay. Have you been involved in any other
09:08:22 10 litigation since we last met on May 3rd?
09:08:26 11 A Not yet. I got a phone call from an attorney
09:08:34 12 about the possible getting involved.
09:08:36 13 Q Okay. Can you -- are you at liberty to
09:08:39 14 describe what that involves?
09:08:41 15 MR. McGUIRE: No, he's not. And I don't know
09:08:42 16 this attorney or anything about it, but I will stand for
09:08:45 17 his confidentiality at this point in time, work product,
09:08:49 18 since I'm sure --
09:08:50 19 Have you been designated as an expert witness?
09:08:53 20 THE WITNESS: No.
09:08:54 21 MR. McGUIRE: Then it's confidential.
09:08:55 22 MR. KODSI: That was going to be my next
09:08:57 23 question. I understand that.
09:08:58 24 BY MR. KODSI:
09:08:58 25 Q Have you been involved in a consulting role
09:09:01 26 involving environmental tobacco smoke on anything since
09:09:04 27 May 3rd?

09:09:05 28 MR. McGUIRE: Calls for a legal conclusion.
Vail, Christians & Associates (619)544-8344 422

09:09:11 1 THE WITNESS: What do you mean consulting
09:09:12 2 role?
09:09:12 3 BY MR. KODSI:
09:09:12 4 Q Have you -- for any administrative agencies
09:09:15 5 or governmental agencies.
09:09:16 6 A Again, I'm not quite clear what means
09:09:21 7 consulting.
09:09:21 8 Q Have you been -- have you done any
09:09:23 9 presentations related to environmental tobacco smoke since
09:09:27 10 we last met on May 3rd?
09:09:29 11 A Yes.
09:09:29 12 Q Okay. Could you describe those?
09:09:31 13 A This was last Monday and Tuesday on a public
09:09:35 14 meeting organized by OEHA on possible health impacts of
09:09:44 15 gasoline and gasoline combustion products.
09:09:51 16 Q Were you invited by OEHA to do a
09:10:04 17 presentation?
09:10:04 18 A Yes.
09:10:05 19 Q And what did your presentation entail?
09:10:07 20 A My presentation was essentially on ozone
09:10:10 21 nitrogen oxides and lung cancer.
09:10:16 22 Q And what -- did you present a published
09:10:20 23 paper, or data -- or what did you present?
09:10:22 24 A This was a slide presentation in which I
09:10:28 25 presented data on several papers I had published on ozone
09:10:35 26 and lung cancer. And one slide also involved the studies
09:10:38 27 I had done with the Strain A mouse and tobacco smoke.
09:10:41 28 Q This meeting lasted two days?
Vail, Christians & Associates (619)544-8344 423

09:10:49 1 A It was last Monday and Tuesday.
09:10:52 2 Q What is your understanding of the purpose of
09:10:54 3 this OEHA public meeting?
09:10:57 4 MR. McGUIRE: Calls for speculation.
09:10:58 5 You can answer.
09:11:00 6 THE WITNESS: Oh.
09:11:00 7 MR. McGUIRE: Unless I tell you not to or ask
09:11:02 8 you not to, I'm making the objections only for the record,
09:11:06 9 and you're to answer questions as they come.
09:11:08 10 THE WITNESS: Essentially, OEHA is charged to
09:11:11 11 develop a risk assessment for gasoline combustion
09:11:16 12 products, which are together with diesel, some of the
09:11:22 13 major air pollutions in urban areas. And they were
09:11:26 14 bringing together quite a few experts, toxicology,
09:11:30 15 epidemiology, atmospheric chemistry, roughly to get some
09:11:36 16 fundamental information, where are the problems, what
09:11:39 17 should we do.
09:11:40 18 BY MR. KODSI:
09:11:40 19 Q And are they forming a scientific advisory
09:11:47 20 board on that issue, to your knowledge?
09:11:49 21 A No.
09:11:50 22 Q Okay. Who else do you remember presenting at
09:11:55 23 this meeting?
09:11:56 24 A Dr. Pinkerton, which might be of interest to
09:12:02 25 you. Then it was Aaron Cohen of the Health Effects
09:12:12 26 Institute.
09:12:14 27 Q Aaron Cohen?
09:12:15 28 A Yes. Do you want all the people I might
Vail, Christians & Associates (619)544-8344 424

09:12:18 1 remember?
09:12:18 2 Q How many are there going to be?
09:12:20 3 A I might remember half a dozen, but there are

09:12:23 4 about a dozen.

09:12:23 5 Q Okay. The ones you remember, then.

09:12:25 6 A Okay. Then there was Ivra Hertz-Picciotta of

09:12:34 7 the University of North Carolina. There was -- let's

09:12:39 8 see. What was his first name? Roger Achison, I think,

09:12:42 9 meaning the University of California, Riverside. Janet

09:12:45 10 Ayrey, his wife. There were several atmospheric chemists,

09:12:55 11 which I don't really recall the names.

09:12:57 12 And in the health side, there was a lady from

09:13:04 13 the Department of Health Services from the State of

09:13:05 14 California, epidemiologist, the name I do not remember.

09:13:13 15 And there was a Joellen Lewtas from the U.S. EPA. That

09:13:24 16 was her name. Those are the ones I remember offhand.

09:13:27 17 Q Now, you were asked to present the results of

09:13:29 18 your animal inhalation studies on ozone nitrogen, nitrogen

09:13:35 19 oxide?

09:13:36 20 A That's right. Yes.

09:13:36 21 Q Were you asked to present anything on

09:13:38 22 epidemiology?

09:13:39 23 A No.

09:13:39 24 Q Did you present anything related to

09:13:42 25 epidemiology?

09:13:43 26 A No. I made one mistake, yes. I quoted one

09:13:48 27 study, the most recent one about air pollutants and lung

09:13:52 28 cancer which is the Southern California Seventh Adventists

09:14:01 1 Vail, Christians & Associates (619)544-8344 425

09:14:01 2 study.

09:14:01 2 MR. McGUIRE: Seventh Day.

09:14:04 3 THE WITNESS: Seventh Day Adventists.

09:14:06 4 BY MR. KODSI:

09:14:06 5 Q Did you say you made one mistake?

09:14:08 6 A Well, yeah. It was something, I misquoted

09:14:11 7 the paper.

09:14:11 8 Q Okay. When you discussed that one

09:14:13 9 epidemiologist study, you misquoted it?

09:14:15 10 A I misquoted one of the results.

09:14:17 11 Q And you mentioned that there was an

09:14:20 12 epidemiologist at the conference?

09:14:22 13 A That was Aaron Cohen.

09:14:23 14 Q And that was the person they invited to talk

09:14:25 15 about epidemiology for that meeting?

09:14:27 16 A Yes.

09:14:27 17 Q Okay. Let me ask you since May 3rd, and we

09:14:37 18 can break this question down. But I want to ask it

09:14:40 19 globally first.

09:14:41 20 Could you describe for me have you done

09:14:42 21 anything specifically to prepare for your testimony in

09:14:44 22 this case since we last met on May 3rd?

09:14:47 23 A Yes.

09:14:47 24 Q Okay. Could you generally describe for me

09:14:51 25 what you've done, and if you could actually begin by maybe

09:14:54 26 estimating how many hours you've spent since May 3rd?

09:14:57 27 A I couldn't estimate this. I have some notes,

09:15:02 28 but I might say perhaps 10, 15.

09:15:05 1 Vail, Christians & Associates (619)544-8344 426

09:15:08 2 Q So you think it's less than 20 hours would be

09:15:09 3 a fair --

09:15:09 3 A That would be a fair, yes.

09:15:11 4 Q Okay.

09:15:11 5 MR. McGUIRE: A fair what? Estimate?

09:15:13 6 BY MR. KODSI:

09:15:13 7 Q A fair estimate of how many hours you've

09:15:16 8 spent since May 3rd?

09:15:18 9 A Yes.

09:15:18 10 Q Okay. Now, if you could just generally

09:15:21 11 describe for me what you did during -- what you've done?

09:15:24 12 A Essentially, I went to the library and asked

09:15:29 13 a few people about answers to questions which I felt I

09:15:34 14 hadn't known the answer or hadn't given the precise answer

09:15:38 15 at the last deposition.

09:15:41 16 Q What -- could you give me some examples of

09:15:44 17 what types of questions?

09:15:45 18 A Yes. You, in one of your questions to me,

09:15:52 19 asked whether I was familiar with the IARC study. No more

09:15:58 20 details given. But there was a reaction on the part of

09:16:03 21 Mr. Stone as if I should have known about the IARC study.

09:16:08 22 And so I set out to find out what the IARC study was all

09:16:12 23 about.

09:16:12 24 Q And the other examples that you looked for?

09:16:18 25 A No. That was the main thing.

09:16:20 26 Q Okay. Other than going to the library and

09:16:27 27 trying to track down the IARC study, what else have you

09:16:29 28 done since May 3rd?

Vail, Christians & Associates (619)544-8344 427

09:16:30 1 A I asked a few people whether they knew what

09:16:35 2 the IARC study was. And the other thing is I continued my

09:16:41 3 research and went to Toledo, Ohio.

09:16:47 4 Q So is the IARC study the only study you've

09:16:54 5 read since your May 3rd deposition that relates to your

09:16:57 6 testimony in this case?

09:16:57 7 A No.

09:16:58 8 Q Okay. What else -- what else have you read?

09:17:03 9 MR. McGUIRE: He has it. You can just, yeah,

09:17:05 10 tell him. He knows it. It's in there. He's just asking

09:17:08 11 you to tell him.

09:17:08 12 THE WITNESS: Well, there was essentially I

09:17:11 13 think five or six papers. One of them was the IARC study,

09:17:17 14 which actually I prefer to refer to as the Boffetta

09:17:22 15 study. The second one was the editorial that went with

09:17:25 16 the study. The third one was a paper with two Russian

09:17:34 17 authors on ETS and women in Moscow. Then there was the

09:17:48 18 study that came out this year, a German study, on ETS and

09:17:55 19 lung cancer in women. There was the paper on the

09:18:01 20 association between ETS and adenocarcinomas or squamous

09:18:09 21 cell carcinomas. And there was the report on the

09:18:12 22 committee of tobacco and health from the United Kingdom.

09:18:16 23 BY MR. KODSI:

09:18:16 24 Q Do you recognize that as the SCOTH report,

09:18:20 25 S-C-O-T-H?

09:18:22 26 A That's -- if it goes by this, yes, it would

09:18:26 27 make sense.

09:18:27 28 Q Okay. We'll talk about that a little bit

Vail, Christians & Associates (619)544-8344 428

09:18:28 1 later.

09:18:29 2 A Yes.

09:18:29 3 Q How did you go about choosing what additional

09:18:38 4 material to read since May 3rd? What was your selection

09:18:41 5 process?

09:18:42 6 MR. McGUIRE: Asked and answered.

09:18:43 7 Go ahead.

09:18:45 8 THE WITNESS: I asked an acquaintance of mine

09:18:50 9 at OEHA, Lauren Zeise.

09:18:55 10 BY MR. KODSI:

09:18:57 11 Q What did you ask her?

09:18:59 12 A Whether she knew what the IARC study was and

09:19:02 13 what was new out in the field.

09:19:05 14 Then you asked me this question, do you know
09:19:08 15 the IARC study.
09:19:09 16 Q Uh-huh.
09:19:09 17 A I thought you were referring to some IARC
09:19:14 18 monograph, which I wasn't aware of. And, as a matter of
09:19:17 19 fact, there is no IARC monograph yet that I'm aware of.
09:19:22 20 And so I have found out the IARC study you referred to was
09:19:26 21 really the Boffetta paper. And then I got those
09:19:35 22 references I mentioned.
09:19:36 23 Q So what you looked for was the Boffetta
09:19:40 24 paper, and you asked Ms. Zeise about what other recent
09:19:44 25 information might be out there on ETS?
09:19:46 26 A Yes.
09:19:46 27 Q Did you focus solely on ETS and lung cancer
09:19:49 28 in that request and search?
Vail, Christians & Associates (619)544-8344 429
09:19:52 1 A Yes, because the -- yes.
09:20:04 2 Q Okay. And we'll go back and talk about those
09:20:09 3 in greater detail later, but I want to just try and figure
09:20:12 4 out everything you've done since May 3rd. So in addition
09:20:14 5 to what you've just described, is there anything else
09:20:17 6 you've done since your May 3rd deposition?
09:20:19 7 A Yes. I read some material that was sent to
09:20:21 8 me by Mr. McGuire.
09:20:25 9 Can I have some more coffee?
09:20:28 10 Q Sure.
09:20:30 11 MR. McGUIRE: I'll go get it. Why don't you
09:20:32 12 just stay here.
09:20:34 13 BY MR. KODSI:
09:20:34 14 Q Would you like me to wait until you get --
09:20:40 15 MR. McGUIRE: No.
09:20:42 16 MR. KODSI: That's fine.
09:20:43 17 BY MR. KODSI:
09:20:43 18 Q You said you read some material that was sent
09:20:48 19 to you by Mr. McGuire, and we'll go through that. I think
09:20:51 20 I've got that. So it might be easier to identify that
09:20:54 21 later.
09:20:54 22 What -- what else have you done?
09:20:58 23 A You mean related to this case?
09:21:03 24 Q Yes. I'm sorry. Thank you for the
09:21:04 25 clarification.
09:21:05 26 A To the best of my knowledge, this is all I
09:21:19 27 can think of right now.
09:21:21 28 Q Okay. Have you had any meetings with
Vail, Christians & Associates (619)544-8344 430
09:21:23 1 Mr. McGuire since May 3rd?
09:21:26 2 A Yesterday.
09:21:27 3 Q And that's the only time you've met with him
09:21:30 4 since May 3rd?
09:21:30 5 A Yes.
09:21:31 6 Q And how long did that meeting last?
09:21:33 7 A Three hours.
09:21:33 8 Q Are you including that in the ten- to 15-hour
09:21:37 9 estimate about the work you've done since May 3rd?
09:21:39 10 A No.
09:21:39 11 Thank you.
09:21:40 12 Q What did you and Mr. McGuire discuss during
09:21:42 13 that meeting yesterday?
09:21:43 14 A The first thing is I asked him what AESI was
09:21:56 15 because I had come across this in the deposition of
09:22:00 16 Dr. Joad. And so I asked him what this was.
09:22:07 17 Q And, actually, this is a question we all want
09:22:09 18 to hear the answer to. What is AESI?

09:22:12 19 A It's a nonprofit organization located at
09:22:17 20 Stanford University, and as the name says -- now I'm
09:22:26 21 blocking out what the A is for.

09:22:28 22 Q American Environmental --
09:22:32 23 A American Environmental Safety Institute.
09:22:36 24 Q Any other -- anything else you learned about
09:22:40 25 AESI?

09:22:41 26 A No.
09:22:41 27 Q Okay. What else did you all discuss?
09:22:44 28 A Then we made -- we went through the stack of
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09:22:48 1 papers which had been sent to me, and that was essentially
09:22:54 2 it, through my file.

09:22:58 3 Q Have you done any work with anyone other than
09:23:03 4 Mr. McGuire or people with his law firm since May 3rd,
09:23:07 5 related to this case?

09:23:08 6 A What would you understand by work?
09:23:12 7 Q Let's start out with have you corresponded
09:23:18 8 with any of the expert witnesses? Let's narrow that, and
09:23:21 9 then we'll broaden it. Have you corresponded with any of
09:23:24 10 the expert witnesses in this case, about this case?

09:23:27 11 A Corresponded? You mean in writing?
09:23:29 12 Q However you would define correspondence.
09:23:34 13 Writing, emails, telephone calls. To talk about this
09:23:37 14 case.

09:23:37 15 A I talked to Dr. Pinkerton. Not very much. I
09:23:48 16 would not know whether I corresponded with Dr. Bogen
09:23:55 17 between the last deposition or so. But this could be
09:23:58 18 found in my email.

09:24:00 19 MR. KODSI: Okay. All right. Let me mark
09:24:23 20 -- we'll put that there. And you get it later. Is that
09:24:27 21 it?

09:24:27 22 This is the deposition notice.
09:24:34 23 MR. KODSI: Mickey, do you need to see one?
09:24:37 24 MR. McGUIRE: I'll just take one so I have a
09:24:39 25 copy as well.
09:24:40 26 (Exhibit 548 was marked for identification.)
09:24:40 27 BY MR. KODSI:

09:24:40 28 Q Doctor, you have been handed what has been
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09:24:45 1 marked as Exhibit 548. I just want to ask if you have
09:24:49 2 seen that before.

09:24:50 3 A No.
09:24:50 4 Q Okay. If you turn to page 4 where it's
09:24:57 5 marked Exhibit A?

09:24:59 6 A Uh-huh.
09:25:00 7 Q Have you seen that page before?
09:25:08 8 A It could have been in some material I've seen
09:25:10 9 in a different context before.

09:25:11 10 Q Let me explain to you what it is, and then I
09:25:14 11 just want to ask you a few questions. Exhibit A is a
09:25:18 12 request for you to bring documents or provide documents to
09:25:20 13 us before your deposition. Have you maybe discussed this
09:25:23 14 exhibit or these requests with Mr. McGuire?

09:25:25 15 A No.
09:25:25 16 Q Okay. What I'd like you to do is -- you
09:25:30 17 provided some documents to Mr. McGuire for this
09:25:32 18 deposition, correct? Maybe we should mark those now.

09:25:42 19 MR. McGUIRE: Your email, the list of
09:25:45 20 reports. That's what he's talking about.
09:25:47 21 THE WITNESS: I'm sorry. Yes.
09:25:48 22 BY MR. KODSI:

09:25:48 23 Q I'm sorry. Maybe I'm not being clear.

09:25:50 24 MR. McGUIRE: It's a little language
09:25:51 25 difference.
09:25:52 26 THE WITNESS: Oh, yes.
09:25:52 27 MR. KODSI: Let's go ahead and mark this. I
09:25:56 28 know you're not going to recognize the cover letter.
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(Exhibit 549 was marked for identification.)
09:25:59 1
09:26:02 2 BY MR. KODSI:
09:26:02 3 Q Okay. I'm showing you what what's been
09:26:08 4 marked as Exhibit 549. I don't know if you have seen the
09:26:11 5 cover letter on 549. Have you?
09:26:12 6 A No, I don't think so.
09:26:14 7 Q Okay. Flip to the rest of it, and let me ask
09:26:16 8 you if that material looks familiar to you.
09:26:18 9 A That looks familiar.
09:26:20 10 MR. McGUIRE: When you say that, why don't
09:26:21 11 you describe what that is.
09:26:22 12 THE WITNESS: Oh. A letter of June 22nd,
09:26:25 13 Federal Express material, a letter from Daniel, the script
09:26:28 14 for Dr. Coggins, and the scientific paper prepared by
09:26:32 15 Dr. Coggins.
09:26:33 16 BY MR. KODSI:
09:26:33 17 Q Okay.
09:26:34 18 A I've seen those things.
09:26:35 19 Q Rather than go -- and we may go through some
09:26:37 20 of these individually. What might be easier is if you can
09:26:40 21 take just a few seconds to flip through and tell me if you
09:26:43 22 recognize that as the information you provided to
09:26:45 23 Mr. McGuire.
09:26:48 24 If that looks like your file in this case
09:26:52 25 might be a better way to ask it.
09:26:54 26 MR. McGUIRE: His file in this case is about
09:26:57 27 ten inches thicker because all that's in there are the
09:27:01 28 first page of the 9th Report on Carcinogens --
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09:27:05 1 MR. KODSI: Right.
09:27:06 2 MR. McGUIRE: And you know all the rest of
09:27:08 3 this stuff?
09:27:09 4 MR. KODSI: Right. That's a better way to
09:27:11 5 state it. Thanks for the clarification.
09:27:12 6 MR. McGUIRE: As a matter of fact, if you put
09:27:25 7 in the depositions in the exhibits, it's about a foot and
09:27:28 8 a half high. Because we had it on the desk yesterday.
09:27:50 9 THE WITNESS: Yes.
09:27:52 10 MR. KODSI: Okay. And I just realized
09:27:55 11 there's a second set. I'm going to go off the record for
09:28:04 12 about one minute.
09:28:05 13 MR. McGUIRE: Okay. Well, we have to do some
09:28:07 14 too because what happened was --
09:28:10 15 MR. KODSI: Are we off?
09:28:11 16 VIDEOGRAPHER: No, sir.
09:28:12 17 MR. McGUIRE: Leave this on the record.
09:28:13 18 MR. KODSI: Okay.
09:28:14 19 MR. McGUIRE: Yesterday, going through his
09:28:16 20 file and ascertaining whether all and everything pursuant
09:28:20 21 to Exhibit A was in front of us, he indicated there were
09:28:24 22 one or two emails that he didn't think were relevant. I
09:28:27 23 said if they have anything to do with this case, we want
09:28:30 24 to make copies of them. He had to go talk to his
09:28:33 25 assistant who then emailed, after everybody from my office
09:28:35 26 was gone, to us what there was. And then this morning,
09:28:40 27 they faxed over here -- since I didn't go to my office
09:28:44 28 yet -- what it was that she emailed over.

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09:28:46 1 If this is a good time, we'll take a few
09:28:48 2 minutes to have him look through this to make sure this is
09:28:52 3 what that information is, and then I can have them make a
09:28:56 4 copy. It's no great shakes. What it apparently is,
09:28:58 5 mostly is, is a copy of that tobacco-free initiative
09:29:03 6 document, which you have a face page copy of.
09:29:07 7 And then there are one or two emails here
09:29:12 8 including the Russian women study.
09:29:13 9 So with your permission, we'll take a minute
09:29:16 10 off the record?
09:29:16 11 MR. KODSI: Yeah. Why don't we do one
09:29:18 12 more -- because I think there's the other set you sent to
09:29:21 13 Pat yesterday. Why don't we mark that set and have him
09:29:25 14 look through it and then we'll do that. So we can run it
09:29:27 15 in order.
09:29:28 16 MR. McGUIRE: Okay. I sent it to him the day
09:29:30 17 before yesterday.
09:29:31 18 MR. KODSI: Okay. It takes time to get to
09:29:33 19 North Carolina.
09:29:34 20 MR. CAFFERTY: Actually, technically
09:29:35 21 speaking, you probably sent it to me on Monday. I got it
09:29:39 22 on Tuesday, and then sent it to him. He got it yesterday.
09:29:41 23 MR. McGUIRE: I was trying to be ahead of it.
09:29:42 24 MR. KODSI: I understand. It was not a
09:29:43 25 criticism.
09:29:44 26 MR. McGUIRE: Okay.
09:29:45 27 (Exhibit 550 was marked for identification.)
09:29:45 28 BY MR. KODSI:

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09:29:45 1 Q You've been handed what's been marked as
09:29:47 2 Exhibit 550, Dr. Witschi. If you just look through
09:29:51 3 that and see if that is also from your files in this
09:29:56 4 case. And if I'm mischaracterizing it, if you want to
09:30:00 5 clarify that, please feel free.
09:30:46 6 A Yes. Everything that's in here has something
09:31:16 7 to do with me and this case.
09:31:18 8 MR. McGUIRE: If we can just mark.
09:31:22 9 MR. KODSI: 550.
09:31:23 10 MR. McGUIRE: 550 is Bates numbers PX-HW-23
09:31:27 11 through 101.
09:31:29 12 MR. KODSI: Right. And then you have some
09:31:33 13 more documents you want to look at. Off the record now
09:31:35 14 would be a good time.
09:31:36 15 MR. McGUIRE: Well --
09:31:37 16 MR. CAFFERTY: I'm sorry.
09:31:38 17 MR. McGUIRE: Go ahead.
09:31:38 18 MR. CAFFERTY: Just to clarify the record,
09:31:40 19 that was for 550 was that numbering scheme. And I assume
09:31:45 20 the HW refers to Hanspeter Witschi. The PX, what does
09:31:51 21 that refer to?
09:31:52 22 MR. McGUIRE: That's the work product. 549,
09:31:55 23 please.
09:31:55 24 MR. CAFFERTY: 549 has two different
09:31:57 25 sequences of numbers. So I think it might be useful to
09:32:01 26 state that for the record too.
09:32:03 27 MR. McGUIRE: Sure. Not to create a
09:32:05 28 scientific issue on this. How about Plaintiff's expert.

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09:32:08 1 MR. CAFFERTY: Plaintiff's expert. Okay.
09:32:11 2 MR. McGUIRE: All right. So 549 has the
09:32:15 3 same, PX-HW-22, and then 1 through 21 -- 1 through 22.
09:32:36 4 There are two transmittal letters that are not Bates

09:32:41 5 stamped. The June 22nd one -- at least not in this
09:32:45 6 version are they Bates stamped. They may be. They may
09:32:48 7 have been Bates stamped and are now in his file. June
09:32:51 8 22nd, both of them transmitting information to him. And
09:32:54 9 then there is C-IR-1 through 38 and DHHS-1 and DHHS-378.
09:33:21 10 Both of those last two are cover sheets for very large
09:33:24 11 reports that Dr. Witschi either already had or in the
09:33:30 12 copying for Mr. Cafferty, per the convention, we've agreed
09:33:35 13 to not to recopy voluminous documents that we both have or
09:33:39 14 are publicly available.
09:33:40 15 Okay. So do you want him to take a look at
09:33:43 16 this?
09:33:43 17 MR. KODSI: Yeah. I think that's probably
09:33:45 18 worth doing before I ask my next question.
09:33:47 19 MR. CAFFERTY: How about one more -- one more
09:33:49 20 question. I thought there was one more final page in
09:33:52 21 549. Maybe I have a different copy.
09:33:56 22 MR. McGUIRE: Does it have a number on it?
09:33:58 23 MR. CAFFERTY: No. It has a Bates number on
09:33:59 24 it with production number 2063595086.
09:34:02 25 MR. McGUIRE: I know that's in his file.
09:34:05 26 MR. CAFFERTY: It's not in that copy of the
09:34:07 27 exhibit that I have.
09:34:08 28 MR. KODSI: It's not?
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09:34:10 1 MR. McGUIRE: No. And I think, quite
09:34:12 2 frankly, Boys, that's your problem, not ours, because I
09:34:14 3 know you have it, so he should have it. So let's go off
09:34:17 4 the record.
09:34:26 5 VIDEOGRAPHER: We are off the record. The
09:34:29 6 time is 9:34.
09:34:31 7 (Recess.)
09:39:45 8 VIDEOGRAPHER: We are back on the record.
09:41:53 9 The time is 9:41.
09:41:56 10 (Exhibit 551 was marked for identification.)
09:41:56 11 BY MR. KODSI:
09:41:56 12 Q Okay. Dr. Witschi, let me hand you what
09:42:03 13 we've also marked as Exhibit 551 and ask if you recognize
09:42:07 14 that.
09:42:07 15 A Yes.
09:42:07 16 Q Okay. What is Exhibit 551?
09:42:10 17 A This is part of my file.
09:42:11 18 Q Okay. Now, we've marked three exhibits out
09:42:14 19 of your file this morning, 549, 550, and 551. And what
09:42:24 20 I'd like to ask you about those three exhibits is if that
09:42:27 21 encompass everything that was asked for under Exhibit A of
09:42:33 22 the deposition notice, other than what you'd already
09:42:35 23 provided to us in previous depositions?
09:42:37 24 A Yes.
09:42:37 25 Q Okay. Do you want to take a look at
09:42:43 26 Exhibit A -- have you taken a look at Exhibit A, to make
09:42:46 27 sure, if you can just read it to your self, each paragraph
09:42:49 28 and make sure you're comfortable with that
Vail, Christians & Associates (619)544-8344 439
09:42:52 1 representation. And then we'll move on.
09:42:55 2 MR. McGUIRE: I want to comment for the
09:43:23 3 record that all writings referred to or relied on by the
09:43:26 4 deponent in formulating any expert opinion in the matter
09:43:29 5 or any expert opinion to be given at the trial in this
09:43:31 6 action or expected to be given there, obviously, if there
09:43:35 7 are reports that he's not aware of yet or if he's asked to
09:43:39 8 rebut opinions given by defense experts in this case,
09:43:43 9 those are not here. And we would -- we don't believe that

09:43:49 10 we have an obligation to foresee the future.
09:43:51 11 MR. KODSI: Understood. And I would just ask
09:43:54 12 that if he does formulate any expert reports or additional
09:43:57 13 opinions, that we be notified and have the opportunity,
09:44:00 14 obviously, for subsequent deposition.
09:44:02 15 MR. McGUIRE: I don't expect that he will
09:44:03 16 be --
09:44:04 17 MR. KODSI: Yeah.
09:44:06 18 MR. McGUIRE: -- drafting a report. If it
09:44:08 19 did happen, obviously, I would expect to give it to you
09:44:11 20 first.
09:44:11 21 MR. KODSI: Okay. Great.
09:44:12 22 BY MR. KODSI:
09:44:12 23 Q Are you comfortable that we've got
09:44:17 24 everything?
09:44:18 25 A Yes.
09:44:18 26 Q Okay. Great. Let's move on. Let me just
09:44:22 27 follow up a lit bit earlier where we were talking about
09:44:26 28 you and Mr. McGuire discussing what the AESI was. Did you
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09:44:30 1 discuss what their -- what their business purpose was?
09:44:34 2 A No, I don't -- no.
09:44:36 3 Q What is your understanding of the
09:44:38 4 organization other than they exist at Stanford?
09:44:43 5 A It's an organization which I could say acts
09:44:49 6 in the public interest, and as the name indicates, is
09:44:55 7 concerned about environment and its impact on human health.
09:44:59 8 Q Is your understanding -- how long has that
09:45:02 9 organization been in existence, if you know?
09:45:04 10 A I don't know.
09:45:04 11 Q All right. Do you know the names of any
09:45:06 12 members of the organization or officers in the
09:45:09 13 organization?
09:45:10 14 A No.
09:45:11 15 Q Prior to your meeting with Mr. McGuire where
09:45:16 16 you discussed the AESI, who is it that was your
09:45:22 17 understanding you were testifying on behalf of in this
09:45:24 18 case?
09:45:25 19 A The people of the State of California and in
09:45:30 20 particular the City of San Jose.
09:45:32 21 Q Okay. All right. Let's go on to the next.
09:45:57 22 MR. KODSI: Actually, I have three of these
09:46:08 23 as well. We are on, what, 552?
09:46:12 24 (Exhibit 552 was marked for identification.)
09:46:15 25 BY MR. KODSI:
09:46:15 26 Q This is just your amended expert witness
09:46:18 27 designation. Dr. Witschi, you've been handed what has
09:46:30 28 been marked as Exhibit 552. Is that a documented that you
Vail, Christians & Associates (619)544-8344 441
09:46:35 1 recognize?
09:46:35 2 A Yes.
09:46:35 3 Q Okay. Could you describe it for me.
09:46:38 4 A It is a list of expert witnesses in this
09:46:42 5 case, and for each one, there is a description of the
09:46:51 6 fields in which he is expected to testify.
09:46:56 7 Q When did you first see this document?
09:46:59 8 A I don't recall, but I saw it some time ago.
09:47:04 9 Q Let's turn to page 7 of Exhibit 552. Now,
09:47:18 10 could you describe for me -- well, first of all, what is
09:47:21 11 on page 7?
09:47:23 12 A On page 7 is the writeup on two of those
09:47:27 13 expert witnesses, one of them myself, the other one
09:47:32 14 Dr. Hovell.

09:47:33 15 Q Okay. I'd like to focus on the writeup for
09:47:37 16 you. Did you participate in the drafting of this
09:47:39 17 language?

09:47:41 18 A I was -- I was asked to comment on it, yes.

09:47:45 19 Q Okay. And is it your understanding that
09:47:53 20 Paragraph B discusses what you're expected to testify
09:47:58 21 about in this case?

09:47:59 22 A Yes.

09:47:59 23 Q Okay. Let's walk through that, and I'd like
09:48:03 24 to try to walk through it a sentence or a clause at a
09:48:06 25 time, if we can.

09:48:07 26 The first sentence under Paragraph B says
09:48:10 27 that you're expected to testify regarding the
09:48:13 28 carcinogenicity of ETS as evidenced by the results of his
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experiments involving exposures of mice to ETS.

09:48:18 1 Do you see that?

09:48:21 2 A Yes.

09:48:22 3 Q And that's an area you intend to testify
09:48:25 4 about, correct?

09:48:25 5 A Yes.

09:48:25 6 Q And that's an area we actually covered fairly
09:48:29 7 extensively in the first two days of your deposition?

09:48:31 8 A Yes.

09:48:31 9 Q Okay. Have you -- other than what you've
09:48:35 10 already described for me, have you done any additional
09:48:38 11 work with respect to this opinion since your May 3rd
09:48:41 12 deposition?

09:48:42 13 A What would be your definition of work? I
09:48:47 14 thought about it. Do you want to call this work or not?

09:48:52 15 Q Have your opinions changed with respect to
09:48:55 16 what we discussed in the last two depositions?

09:48:59 17 A No.

09:49:01 18 Q And, as you've described for me, the 10 to 15
09:49:07 19 or less than 20 hours you spent since May 3rd focused
09:49:12 20 mostly on this sentence of your opinion?

09:49:17 21 A No.

09:49:17 22 Q Okay. How -- why -- what percentage of the
09:49:24 23 time you spent since May 3rd focuses on that sentence that
09:49:27 24 we just discussed?

09:49:28 25 MR. McGUIRE: Calls for speculation.
09:49:30 26 Do not even try and guess at that if you
09:49:33 27 don't know. Otherwise -- I mean, if you're going to
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09:49:36 1 answer, then I want you to take a painstakingly long
09:49:39 2 period of time to figure it all out.
09:49:41 3 Otherwise, just tell him you can't estimate.

09:49:45 4 THE WITNESS: No, I can't estimate.

09:49:46 5 BY MR. KODSI:

09:49:46 6 Q Okay. We'll go through the individual
09:49:54 7 documents and do it that way. I think that will be easier.

09:49:56 8 MR. McGUIRE: Good.

09:49:59 9 (Discussion off the record.)

09:50:02 10 BY MR. KODSI:

09:50:02 11 Q Have you developed any further basis for your
09:50:05 12 opinion regarding the carcinogenicity of ETS?

09:50:09 13 MR. McGUIRE: Vague.

09:50:10 14 THE WITNESS: Again, what is your definition
09:50:12 15 of basis?

09:50:13 16 BY MR. KODSI:

09:50:13 17 Q Okay. Let's back up a little bit. Have your
09:50:19 18 opinions regarding the carcinogenicity of ETS changed
09:50:23 19 since May 3rd?

09:50:24 20 MR. McGUIRE: Asked and answered, cumulative.
09:50:26 21 He said no.
09:50:28 22 THE WITNESS: No.
09:50:28 23 BY MR. KODSI:
09:50:28 24 Q Okay. Have you reviewed any materials since
09:50:33 25 May 3rd which lend -- which you are also relying on for
09:50:40 26 those opinions?
09:50:41 27 MR. McGUIRE: Cumulative. He testified to
09:50:44 28 you, gave you the women in Moscow study, the Boffetta
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09:50:48 1 study, and all of that other stuff.
09:50:50 2 You can answer as well as you can on top of
09:50:52 3 that.
09:50:53 4 THE WITNESS: Yes. I did some more reading.
09:50:54 5 BY MR. KODSI:
09:50:54 6 Q Okay.
09:50:56 7 A And you have the information what I read.
09:50:58 8 Q Okay. Let me go on to the next one. The
09:51:03 9 next sentence says you will also testify about the field
09:51:06 10 of pulmonary toxicology.
09:51:09 11 What do you anticipate testifying about there?
09:51:16 12 A My specialty in toxicology is inhalation
09:51:20 13 toxicology, and my experimental work over the last 20
09:51:24 14 years has been in pulmonary toxicology.
09:51:34 15 Q Is there anything -- any opinions you intend
09:51:38 16 to offer about the field of pulmonary toxicology, other
09:51:40 17 than just explaining what your animal work has shown?
09:51:45 18 A Oh, I consider myself an expert in pulmonary
09:51:48 19 toxicology.
09:51:49 20 Q Now, were you prepared to offer this
09:51:55 21 opinion -- or this discussion on May 3rd?
09:51:59 22 A Yes.
09:51:59 23 Q As I understand it -- and, please, correct me
09:52:04 24 if I'm wrong -- that where it says you will testify about
09:52:07 25 the field of pulmonary toxicology, that's just basically
09:52:10 26 an explanation of your background, credentials, and the
09:52:13 27 animal work that you've done? Is that a fair way to sum
09:52:17 28 that up?
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09:52:18 1 MR. McGUIRE: It calls for speculation. What
09:52:20 2 he's going to testify to is answers to questions that
09:52:23 3 we're going to give him in this field. You can ask him
09:52:26 4 any question you want in this field, but you can't ask him
09:52:29 5 what he doesn't know. And that is what I'm going to ask
09:52:31 6 him.
09:52:31 7 MR. KODSI: Fair enough.
09:52:32 8 BY MR. KODSI:
09:52:32 9 Q Why don't you tell me what expert opinions
09:52:35 10 you have about the field of pulmonary toxicology.
09:52:39 11 MR. McGUIRE: That's overbroad and
09:52:40 12 nonsensical.
09:52:41 13 MR. KODSI: Well, Mr. McGuire, I didn't
09:52:45 14 draft -- I didn't draft the disclosure. I'm just trying
09:52:49 15 to figure out what it is he's going to testify about with
09:52:52 16 respect to the field of pulmonary toxicology.
09:52:54 17 MR. McGUIRE: Okay. This is exactly from
09:52:55 18 your expert's designations. So when we take their
09:52:58 19 deposition, if you expect him to answer a question like
09:53:01 20 this, then you expect to get a question like that and
09:53:03 21 expect to get it answered.
09:53:04 22 MR. KODSI: That's fair.
09:53:05 23 BY MR. KODSI:
09:53:05 24 Q Why don't you try the best you can to answer

09:53:08 25 that question.

09:53:09 26 A Why don't you ask me a specific question in

09:53:12 27 the field of pulmonary toxicology.

09:53:15 28 MR. McGUIRE: The question is overbroad.

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09:53:16 1 BY MR. KODSI:

09:53:16 2 Q Okay. Did you discuss that language at all

09:53:21 3 with Mr. McGuire?

09:53:24 4 A I got it for review.

09:53:25 5 Q Okay. When you read "He will also testify

09:53:29 6 about the field of pulmonary toxicology," what was your

09:53:32 7 understanding of what that testimony might cover?

09:53:35 8 A If you ask me anything that relates to the

09:53:43 9 lung and how the lung could be affected by toxic agents,

09:53:49 10 I'd be prepared to give you an answer.

09:53:51 11 Q And in your first two depositions, we talked

09:53:55 12 in great detail about your studies in animals as they

09:54:00 13 relate to tobacco smoke, correct?

09:54:02 14 A Yes.

09:54:02 15 Q And you would view that issue as fitting

09:54:04 16 within the field of pulmonary toxicology?

09:54:07 17 A That's my own research is part of the field

09:54:09 18 of pulmonary toxicology.

09:54:11 19 Q Okay. Why don't we move on to the next one.

09:54:15 20 The next one says that you're going to testify about the

09:54:17 21 mechanics of acute and chronic lung disease caused by

09:54:21 22 toxic agents, including ETS.

09:54:25 23 Why don't you explain for me what that --

09:54:28 24 A This is discussions of the putative

09:54:34 25 mechanisms underlying acute and pulmonary toxicity.

09:54:45 26 MR. McGUIRE: No n.

09:54:50 27 MR. KODSI: Yeah. That's a word we shy away

09:54:56 28 from here.

Vail, Christians & Associates (619)544-8344 447

09:54:58 1 BY MR. KODSI:

09:55:00 2 Q What are the putative mechanisms underlying

09:55:05 3 acute and pulmonary toxicity?

09:55:08 4 A This can be anything from the interaction of

09:55:11 5 free oxygen radicals with cell membranes to agents

09:55:18 6 producing defects in oncogenes, o-n-c-o-g-e-n-e-s.

09:55:29 7 Mechanisms being defined as the underlying

09:55:34 8 physical or chemical processes, which underlie the

09:55:38 9 development of disease.

09:55:41 10 Q How does that area fit with respect to ETS?

09:56:02 11 How does that relate to ETS?

09:56:06 12 A There are certain mechanisms we understand

09:56:13 13 are involved in the pathogenesis of lung cancer, which

09:56:19 14 eventually will have to be addressed in the studies I'm

09:56:22 15 doing.

09:56:22 16 Q When you say will eventually have to be

09:56:27 17 addressed, I'm not sure I understand. Is it something you

09:56:30 18 have not yet addressed?

09:56:31 19 A These are experiments which I have not yet

09:56:34 20 done.

09:56:34 21 Q Okay. Let's step back for a second. Are you

09:56:40 22 planning on doing additional experiments regarding

09:56:45 23 putative mechanisms underlying acute and --

09:56:53 24 MR. McGUIRE: Chronic.

09:56:54 25 THE WITNESS: Chronic.

09:56:57 26 BY MR. KODSI:

09:56:57 27 Q -- chronic diseases with respect to ETS?

09:57:01 28 A I'm planning on doing in the next -- I don't

Vail, Christians & Associates (619)544-8344 448

09:57:05 1 know when. And depending on funding. But some what we
09:57:10 2 call mechanistic studies, why ETS produces lung tumors in
09:57:18 3 mice.

09:57:19 4 Q Have you submitted grant proposals already
09:57:31 5 for these studies?

09:57:32 6 A I have to by November 1.

09:57:33 7 Q So it's something that you're working on now?

09:57:36 8 A Yes.

09:57:36 9 Q Could you describe for me what you anticipate
09:57:43 10 doing or what type of studies you're interested in
09:57:45 11 conducting?

09:57:52 12 A Well, that's -- I'm giving it a lot of
09:57:58 13 thoughts, but I haven't come up with a crisp formulation
09:58:02 14 yet.

09:58:03 15 In general terms, what I plan to do is the
09:58:11 16 development of lung tumors by ETS involves the either
09:58:18 17 overexpression or underexpression of several possible
09:58:26 18 genes which might be involved.

09:58:28 19 I wouldn't know which ones. I have some idea
09:58:34 20 how to go about it. It's called a fishing expedition.

09:58:38 21 Q So you are looking for the mechanism by which
09:58:48 22 tobacco smoke may cause carcinogenicity -- lung
09:58:53 23 carcinogenesis, correct? Is that a fair way to
09:58:58 24 characterize it?

09:59:01 25 A What I'm really going to look is for
09:59:11 26 mechanisms which might explain why under certain instances
09:59:16 27 tumors develop and under other conditions, they do not.

09:59:19 28 Q Do you have a hypothesis going into this
Vail, Christians & Associates (619)544-8344 449

09:59:33 1 study as to why in some conditions tumors develop and why
09:59:38 2 in other conditions they do not?

09:59:42 3 A I think we -- I mentioned this in my first
09:59:47 4 deposition, but as long as the smoke is there,
09:59:50 5 cytotoxicity to a certain extent might offset cell
09:59:58 6 growth. How to test this hypothesis is going to be a
10:00:06 7 challenge and writing up a grant.

10:00:13 8 Q And this may have cleared something up for
10:00:16 9 me, to go back. When we talked earlier about the sentence
10:00:19 10 in your disclosure statement, Exhibit 552, right? There's
10:00:25 11 a little sticker on the front.

10:00:27 12 A Yeah.

10:00:29 13 Q When we talked before about the sentence that
10:00:33 14 says he will also testify about the field of pulmonary
10:00:37 15 toxicology, you view your area of expertise on pulmonary
10:00:45 16 toxicology as it relates to lung cancer, correct?

10:00:51 17 A That's too limited.

10:00:53 18 Q Okay. What areas in addition to lung cancer
10:00:58 19 do you view yourself as an expert on with respect to
10:01:01 20 pulmonary toxicology?

10:01:03 21 A Everything, from acute to chronic lung
10:01:07 22 injury.

10:01:07 23 Q Can you give me some examples of what acute
10:01:11 24 and chronic lung injuries are?

10:01:13 25 A There are certain agents. If a tank truck
10:01:23 26 full of chlorine turns over on the highway and you happen
10:01:28 27 to stand close by, you're immediately dead because the
10:01:31 28 chlorine is going to eat up your lungs. This is a pretty
Vail, Christians & Associates (619)544-8344 450

10:01:38 1 dramatic example of acute injury or if you swallow
10:01:43 2 paraquat, the herbicide, this pretty acutely damages your
10:01:51 3 lungs.

10:01:51 4 On the other hand, if you are working in a
10:01:58 5 granite quarry, you might, or in an asbestos mill, you

10:02:04 6 might inhale particles and fibers which will not make you
10:02:09 7 immediately sick, but injuries, continue exposure, or
10:02:17 8 sometimes even if exposure ceases, you are eventually
10:02:19 9 going to develop chronic lung disease. That would be an
10:02:22 10 example of asbestosis or silicosis would be examples of
10:02:26 11 chronic lung disease.

10:02:30 12 Q Are there any acute or chronic lung diseases
10:02:35 13 other than lung cancer that you have opinions about with
10:02:39 14 respect to ETS exposure?

10:02:52 15 A You mean ETS exposure, or cigarette smoke
10:02:57 16 exposure?

10:02:57 17 Q Let's start with cigarette smoke exposure.

10:03:00 18 A Yes.

10:03:00 19 Q And what would those be?

10:03:02 20 A Chronic obstructive lung disease.

10:03:04 21 Q Can we call that COPD?

10:03:08 22 A COPD, yes.

10:03:09 23 Q Okay. What else?

10:03:15 24 A The complications which might go with COPD,
10:03:22 25 which are of a cardiovascular nature.

10:03:28 26 Q Do you have a specific terminology for those,
10:03:30 27 or would you just say cardiovascular disease?

10:03:34 28 A It's mostly the heart. It's in chronic lung
Vail, Christians & Associates (619)544-8344 451

10:03:43 1 disease, the heart suffers to some extent. It used to be
10:03:48 2 called corpulmonale, c-o-r-p-u-l-m-o-n-a-l-e.
10:03:55 3 So people with obstructive chronic lung
10:04:02 4 disease sometimes also suffer from cardiac insufficiency.

10:04:13 5 Q Any others as they relate to tobacco smoke?
10:04:22 6 We're talking about chronic lung diseases --

10:04:25 7 A Yes.

10:04:25 8 Q I'm sorry. Acute or chronic lung diseases
10:04:28 9 other than lung cancer that you have opinions about with
10:04:30 10 respect to tobacco smoke exposure?

10:04:33 11 A Yes. The COPD. That's it.

10:04:35 12 Q That would be it?

10:04:36 13 A Yeah.

10:04:36 14 Q Okay. Now, you differentiated between that
10:04:38 15 and ETS. Why don't I ask the exact same question with
10:04:43 16 respect to ETS.

10:04:44 17 Are there any acute or chronic lung diseases
10:04:47 18 other than lung cancer that you have opinions about with
10:04:49 19 respect to ETS exposure?

10:04:54 20 A There are certainly no acute ones to ETS.
10:04:59 21 Otherwise, ETS wouldn't be around anymore.

10:05:05 22 The chronics, I would not know.

10:05:18 23 Q So let's go on to the next clause where we
10:05:22 24 talk about the mechanics of acute and chronic lung disease
10:05:25 25 caused by toxic agents, including ETS. The only expert
10:05:31 26 opinions you have with respect to ETS is its relationship
10:05:33 27 to lung cancer?

10:05:35 28 A Yes.
Vail, Christians & Associates (619)544-8344 452

10:05:35 1 Q Okay. Let's go on to the next clause. "The
10:05:45 2 role of a toxicologist in elucidating environmental
10:05:49 3 exposures and health effects."

10:05:51 4 Could you describe for me -- and if it calls
10:05:54 5 for a long answer, I understand -- just what your opinion
10:05:57 6 is the role of a toxicologist in elucidating environmental
10:06:04 7 exposures and health effects.

10:06:07 8 A We often start with an observation that is
10:06:21 9 suggestive that exposure to certain chemicals in the
10:06:25 10 environment causes disease in people. This can come from

10:06:33 11 mostly roughly two sources. One of them are previously
10:06:39 12 conducted epidemiological studies. The other one might be
10:06:46 13 anecdotal or clusters. And the best example for that one
10:06:50 14 would be the Woburn leukemia cluster and some other
10:06:56 15 leukemia clusters.
10:06:57 16 Q Sorry. My microphone fell off. Oh. I
10:07:06 17 probably didn't clip it back on.
10:07:07 18 MR. KODSI: Could we go off the record for
10:07:09 19 just one second.
10:07:15 20 VIDEOGRAPHER: We are off the record. The
10:07:16 21 time is 10:07.
10:07:18 22 (Discussion off the record.)
10:07:37 23 VIDEOGRAPHER: We are back on the record.
10:07:44 24 The time is 10:07.
10:07:46 25 MR. KODSI: Okay. We're back on.
10:07:58 26 BY MR. KODSI:
10:07:58 27 Q Dr. Witschi, had you finished your answer?
10:08:02 28 A I think I was halfway through.
Vail, Christians & Associates (619)544-8344 453
10:08:03 1 Q Yeah. That's what I thought too.
10:08:05 2 A Okay. If we have some indications from human
10:08:08 3 studies, through all of the toxicologists to verify in
10:08:12 4 animal experiments whether there is something to those
10:08:18 5 observations, the reverse is also true that every so often
10:08:28 6 as a toxicologist, you study a certain agent or you
10:08:33 7 stumble across certain agents, you find something that
10:08:37 8 does produce some untoward effects in animals or even
10:08:40 9 cells. And then you think by yourself, gee, what kind of
10:08:44 10 impact might this have out on people in the real world.
10:08:51 11 So it's a two-way street.
10:08:53 12 Q Now, on the -- I'll just refer to the first
10:08:59 13 way of the street -- you discussed how there may be
10:09:03 14 epidemiologic type studies out there and then the
10:09:06 15 toxicologist investigates the mechanisms studied in the
10:09:09 16 epidemiology?
10:09:10 17 A I can give you an example, a very practical
10:09:14 18 example, which goes back some 50 years. And there was a
10:09:20 19 factory in England in which three or four people came
10:09:28 20 down, workers, within a comparatively short time, with
10:09:33 21 jaundice. And the medical officer suspected this was due
10:09:37 22 to inhalation of an otherwise inert solvent, which
10:09:42 23 happened to be dimethylnitrosamine. And the
10:09:48 24 dimethylnitrosamine was mentioned to the then existing
10:09:51 25 toxicology research unit in England, and they did a few
10:09:55 26 experiments and pretty soon found out that this solvent,
10:10:02 27 actually, in rats, produced acute severe liver damage. So
10:10:07 28 this is one way in the street. The one direction in the
Vail, Christians & Associates (619)544-8344 454
10:10:15 1 street.
10:10:15 2 Q We're using the colloquialism.
10:10:18 3 A In this street.
10:10:19 4 Q Okay. We probably should get away --
10:10:23 5 A But then the pathologist who looked at this
10:10:25 6 acute liver damage found there were some odd features to
10:10:28 7 it. And so he became interested not only in studying
10:10:33 8 acute liver toxicity, but then he put some animals on this
10:10:41 9 agent for a couple of years and found out it was a very
10:10:47 10 potent carcinogen. That's how we can discover
10:10:51 11 nitrosamines in general as being human carcinogens. I
10:10:56 12 think this pretty much illustrates the role of toxicology
10:11:01 13 as this two-way street I mentioned.
10:11:04 14 Q And the two-way street we're talking about is
10:11:07 15 how toxicology and epidemiology can be combined to study

10:11:11 16 diseases in humans?
10:11:13 17 A The toxicologist can both get clues from
10:11:20 18 epidemiology or give clues to epidemiology.
10:11:24 19 Q Much more articulate than the way I said it.
10:11:27 20 The -- but a toxicologist cannot, without the
10:11:34 21 benefit of epidemiology, reach conclusions regarding
10:11:39 22 causation in man; is that true?
10:11:45 23 MR. McGUIRE: Well, you mean they -- when you
10:11:47 24 say can't reach conclusions, you mean in his opinion,
10:11:51 25 viable conclusions?
10:11:52 26 BY MR. KODSI:
10:11:52 27 Q Let's do that.
10:11:53 28 A I think he can.
Vail, Christians & Associates (619)544-8344 455
10:11:54 1 Q Why don't you explain for me how.
10:11:56 2 A He provides a hypothesis to the
10:12:06 3 epidemiologist, which then the epidemiologist can test.
10:12:14 4 Q Just like an epidemiologist can provide a
10:12:17 5 hypothesis to a toxicologist, which a toxicologist can
10:12:21 6 test?
10:12:21 7 A Yes.
10:12:21 8 Q And I think that we discussed -- I get the
10:12:25 9 deposition dates mixed up. But I think in your April 10th
10:12:28 10 deposition, we discussed that if the ETS epidemiology
10:12:31 11 didn't exist, although that is a hypothetical, that your
10:12:36 12 toxicology studies would lend biological plausibility to
10:12:40 13 the notion that ETS causes cancer in man and you would
10:12:43 14 expect epidemiologists to begin studying the issue?
10:12:47 15 A Yes.
10:12:47 16 Q Okay. Now, the next clause in your
10:12:59 17 disclosure statement, Exhibit 552, indicates that you're
10:13:05 18 going to discuss the principles in formulating,
10:13:10 19 conducting, and interpreting scientific studies regarding
10:13:13 20 ETS, experimental animal inhalation studies, risk
10:13:17 21 assessments, and epidemiologic studies, including but not
10:13:22 22 limited to Exhibit 468 identified as an exhibit to
10:13:27 23 Volume II of your deposition.
10:13:29 24 Now, that's a long clause. I think it would
10:13:32 25 be easier to break that down into subparts, but before I
10:13:35 26 do that, let me ask you if you would feel comfortable
10:13:38 27 describing what you intend to talk about there, or should
10:13:41 28 we try and break it down?
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10:13:45 1 MR. McGUIRE: Calls for speculation.
10:13:46 2 You can answer.
10:13:50 3 THE WITNESS: Okay. I -- as you know, I have
10:13:54 4 conducted, which I like to call scientific studies on ETS,
10:14:01 5 and I certainly could comment with authority on similar
10:14:06 6 studies, as I did, done by others.
10:14:11 7 Now, as far as risk assessment is concerned,
10:14:17 8 I have a good working knowledge of what it is. I have
10:14:26 9 been around this field for a long time. I couldn't
10:14:31 10 necessarily conduct a proper risk assessment myself, but I
10:14:36 11 am on a committee. I've been on several committees, but
10:14:42 12 the one I am still on -- and this is the scientific review
10:14:45 13 panel of the Air Resources Board, whose job it is to
10:14:49 14 review risk assessments which have been prepared by the
10:14:53 15 State of California to the extent whether they reflect
10:14:59 16 accurately current and best scientific knowledge.
10:15:07 17 So although I could not conduct the risk
10:15:10 18 assessment -- wouldn't want to do it -- I can look at one
10:15:13 19 and can comment on it. I've done this for the last ten
10:15:17 20 years.

10:15:21 21 In the course of doing this, you invariably
10:15:24 22 come across epidemiologic studies, even part of this risk
10:15:30 23 assessment, integral part or adjoining part, which again
10:15:34 24 has given me some working knowledge on understanding some
10:15:40 25 principles of epidemiology.

10:15:44 26 And over the last 20 years, I've also been
10:15:47 27 involved on the study section, you might call this
10:15:56 28 particular, of the EPA, in which on occasion we had
Vail, Christians & Associates (619)544-8344 457

10:16:01 1 epidemiological studies and to look at them and so.
10:16:05 2 And so from this, this is what I meant how I
10:16:07 3 can comment on epidemiologic studies.

10:16:15 4 Q Okay. Leet's -- there's one more clause in
10:16:19 5 there. Let's go ahead and talk about that, and then I
10:16:21 6 want to back up.

10:16:22 7 It also states that you're going to talk
10:16:27 8 about principles in formulating, conducting, and
10:16:28 9 interpreting Exhibit 468 as identified in Volume II of
10:16:32 10 your deposition.

10:16:33 11 For clarification, Exhibit 468 is the
10:16:37 12 California EPA report on ETS, correct?

10:16:40 13 A Yes.

10:16:40 14 Q Okay. So let me ask you do you intend on --
10:16:43 15 do you have any opinions about how the California EPA
10:16:46 16 report was formulated, conducted, or should be
10:16:49 17 interpreted?

10:16:50 18 A I was there while this was being developed.

10:17:03 19 Q Now, you were part of the scientific advisory
10:17:08 20 board for OEHA?

10:17:09 21 A It's called scientific review panel.

10:17:12 22 Q Review panel.

10:17:13 23 A And it's not just for OEHA. Let me explain
10:17:22 24 the mechanism.

10:17:23 25 Q Yeah. That was going to be my next
10:17:25 26 question. So why don't we go through that.

10:17:27 27 A Okay. There is a category of chemicals which
10:17:35 28 are called toxic air contaminants. Now there is an
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10:17:43 1 assembly bill. I think it's called the Tanner Bill which
10:17:49 2 asks that prior to those agents being regulated, a risk
10:17:55 3 assessment has to be prepared. Those risk assessments are
10:18:02 4 essentially prepared by two bodies. One of them is the
10:18:07 5 Air Resources Board, the staff of the Air Resources Board,
10:18:13 6 which deals with the exposure assessment. The other is
10:18:18 7 the health effects part, which is written by OEHA.

10:18:25 8 The panel I'm on -- I am on -- sorry -- is
10:18:35 9 nine members, all from various disciplines: environmental
10:18:43 10 chemistry, exposure, statistics, toxicologists. I happen
10:18:48 11 to be the pathologist on this panel.

10:18:51 12 When the documents are in a most of the time
10:19:03 13 halfway finished, they are usually coming the first time
10:19:11 14 in front of the panel, which more often than not is rather
10:19:17 15 grouchy and sends it back.

10:19:22 16 But much more important than that, it depends
10:19:27 17 on what stage, those documents go out for public comment.
10:19:33 18 And then the agencies collect the public comments and
10:19:39 19 provide a third document, Document C, which contains all
10:19:43 20 the public comments they received and the answer of the
10:19:50 21 agency.

10:19:50 22 So before we approve a report, we get the
10:19:55 23 three documents: a, the exposure, b, the health effects,
10:19:59 24 and, c, the public comments. And what practically -- I
10:20:04 25 wouldn't want to speak for my colleagues. I know one or

10:20:07 26 two, but I think most of them, first is going to look at
10:20:13 27 the public comments and make up our own mind who is right
10:20:20 28 or who provides the more convincing argument. That's
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10:20:25 1 really whenever we read those documents, that's the first
10:20:28 2 thing we go to.
10:20:30 3 And this then is really -- that's why I said
10:20:35 4 I was there, because in Exhibit 468, that's not only the
10:20:40 5 finished OEHA document, but Appendix A and B contain all
10:20:47 6 the public comments that were received at one time or the
10:20:52 7 other and which I've seen at one time or the other.
10:20:56 8 Q Were -- did -- were you assigned in any way
10:21:02 9 helping to respond to the public comments as it exists in
10:21:05 10 Appendix A or B to the Cal EPA report?
10:21:08 11 A No.
10:21:08 12 MR. McGUIRE: Let him finish --
10:21:10 13 THE WITNESS: Oh.
10:21:11 14 MR. McGUIRE: -- his question, even though
10:21:13 15 you think you know the answer.
10:21:14 16 MR. KODSI: Yeah. Actually, I think the
10:21:16 17 court reporter got it right. But we can't talk at the
10:21:19 18 same time is what Mr. McGuire is saying, and that's true.
10:21:22 19 BY MR. KODSI:
10:21:22 20 Q What was your role as a member of the
10:21:28 21 scientific review panel? If you could. I guess I'm
10:21:34 22 asking you to carve out your niche. What was it that you
10:21:37 23 did as a member of that panel?
10:21:38 24 A When I joined the panel, I think it was in
10:21:45 25 1991, I think the report had already been initiated. I
10:21:51 26 saw several drafts coming along the way. I was not at
10:21:58 27 every meeting we discussed the report. If I recall, I was
10:22:02 28 for one reason or the other not at the final
Vail, Christians & Associates (619)544-8344 460
10:22:04 1 meeting. But, on the other hand, I went through the
10:22:09 2 different drafts. And I also attended at least one, I can
10:22:15 3 remember, public meeting where comments were offered.
10:22:20 4 Q Now, the report, as you know, covers various
10:22:32 5 topics. Was there any particular area of the report that
10:22:34 6 you focused on?
10:22:36 7 A No. I had no -- I essentially went through
10:22:42 8 the entire report -- well, Part B. I mean, the health
10:22:48 9 effects at the time being. I don't recall how this one
10:22:51 10 was organized, whether it was strictly Part A and Part B,
10:22:55 11 which might have become Part A, might have become Chapter
10:22:58 12 2, I think now.
10:23:00 13 Q You're talking about the chapter on chemistry
10:23:02 14 and exposure assessment?
10:23:04 15 A Yes. Yes.
10:23:04 16 Q Did you play any role with respect to that
10:23:06 17 chapter?
10:23:07 18 A No.
10:23:07 19 Q Now, the report contains several chapters
10:23:10 20 after that that discuss various diseases. Was there any
10:23:15 21 particular chapter that you focused on in your work?
10:23:18 22 A Not really, no.
10:23:18 23 Q What was your role as the pathologist, if you
10:23:25 24 can describe that maybe in a little more detail.
10:23:27 25 A As I said, the -- I don't know whether
10:23:35 26 it's -- I don't know the exact legal background, but
10:23:40 27 whatever it is specifies that on this panel have to be, as
10:23:47 28 I said, a toxicologist, a pathologist, a biostatistician,
Vail, Christians & Associates (619)544-8344 461
10:23:56 1 an epidemiologist, one oncologist, one I think chemist or

10:24:01 2 whatever it is. Each panel member represents a different
10:24:08 3 discipline, and it just happened that ten years ago,
10:24:19 4 everybody knew I was in Davis and everybody knew I was a
10:24:22 5 toxicologist. But I also had emphasized that really I
10:24:28 6 have a background -- or at least I understand pathology.
10:24:33 7 So that's how I came onto the panel, as being a
10:24:36 8 pathologist. It's just filling this particular slot.
10:24:42 9 Q Okay. Now, my earlier question was asking if
10:24:46 10 you focused on any particular of the diseases. As the
10:24:53 11 pathologist did you focus on any particular types of
10:24:55 12 studies? In other words, did you only focus on studies
10:24:58 13 involving pathology and toxicology in your assignment as a
10:25:02 14 member of the SRP?
10:25:04 15 A No. The way this worked, we were given the
10:25:07 16 document to read, and from what is expected from us is
10:25:14 17 whether we can agree what's in there based on our
10:25:17 18 expertise.
10:25:17 19 Q You were asked to look at it from the focal
10:25:20 20 point of your own expertise?
10:25:22 21 A With emphasis on our focal point, yes. But
10:25:29 22 we can be broader than that.
10:25:30 23 Q And that went for everyone on the panel?
10:25:33 24 A Yes.
10:25:34 25 Q Okay. If you know, how were you -- I think
10:25:41 26 you described this for me briefly that people knew you had
10:25:43 27 a background in pathology. Do you know how you were
10:25:46 28 selected as the pathologist that they chose over other
Vail, Christians & Associates (619)544-8344 462
10:25:49 1 potential candidates, if you know?
10:25:51 2 A I don't know.
10:25:52 3 Q All right. Let me go back. We were talking
10:26:00 4 about the last clause of Exhibit 552, and you indicated
10:26:07 5 that you have I think extensive experience in, as you
10:26:11 6 said, in formulating, conducting, and interpreting
10:26:14 7 experimental animal inhalation studies, correct?
10:26:17 8 A Yes.
10:26:17 9 Q Okay. And I think we covered a lot of that
10:26:20 10 in your first two days of deposition.
10:26:26 11 Just so I understand, you believe you
10:26:28 12 understand the concept of risk assessment, but you have
10:26:32 13 never formulated a risk assessment?
10:26:36 14 A What do you mean by formulate?
10:26:38 15 Q Well, I'm trying to use the word that's in
10:26:41 16 there. Do you have an understanding of what it would mean
10:26:44 17 to formulate a risk assessment, or should I try to use a
10:26:47 18 different word?
10:26:48 19 A Oh.
10:26:53 20 MR. McGUIRE: Doctor, you don't have to
10:26:54 21 guess?
10:26:55 22 MR. KODSI: Right. I don't want you to
10:26:56 23 speculate.
10:26:57 24 MR. McGUIRE: You didn't write that
10:26:58 25 document. A lawyer wrote it, and so if you -- you can
10:27:02 26 give him what your interpretation is.
10:27:03 27 BY MR. KODSI:
10:27:03 28 Q Right. That's all I'm asking. If you don't
Vail, Christians & Associates (619)544-8344 463
10:27:05 1 have an understanding, I'll try to use a different word.
10:27:08 2 A Oh, I've never conducted a risk assessment.
10:27:10 3 Q You've never designed a risk assessment?
10:27:13 4 A Well, you don't design those. This is pretty --
10:27:17 5 MR. McGUIRE: Just tell him no.
10:27:20 6 THE WITNESS: No.

10:27:20 7 BY MR. KODSI:
10:27:20 8 Q What about -- let's talk about epidemiologic
10:27:25 9 studies. I think we've talked about this extensively on
10:27:28 10 April 10th, but you've never conducted an epidemiology
10:27:31 11 study?
10:27:32 12 A No.
10:27:32 13 Q And you've never designed an epidemiology
10:27:34 14 study?
10:27:34 15 A No.
10:27:35 16 Q And do you view yourself as an expert in
10:27:38 17 being able to interpret epidemiologic studies?
10:27:43 18 MR. McGUIRE: Asked and answered,
10:27:43 19 cumulative, calls for a legal conclusion as to the
10:27:47 20 definition of an expert, legally.
10:27:49 21 You can answer.
10:27:51 22 Would you repeat the question.
10:27:53 23 (Record read.)
10:28:00 24 THE WITNESS: I can read them. I can
10:28:05 25 understand them. Again, what do you mean by being an
10:28:09 26 expert?
10:28:09 27 BY MR. KODSI:
10:28:09 28 Q Do you feel that you understand how to
Vail, Christians & Associates (619)544-8344 464
10:28:13 1 interpret the quality of one epidemiologic study versus
10:28:16 2 another?
10:28:23 3 A Again, I would have to ask at what level?
10:28:27 4 Q Do you have in mind a level that you would be
10:28:32 5 able to answer that question yes?
10:28:33 6 A I can tell a very good one from a very bad
10:28:36 7 one.
10:28:36 8 Q But there's a middle ground where you might
10:28:39 9 be uncomfortable making that determination?
10:28:41 10 A Yes.
10:28:41 11 Q Okay. Actually, I want to -- I know it
10:29:01 12 hasn't been quite an hour, but this might be a good time
10:29:03 13 for me to take a break, because I might be able to shorten
10:29:06 14 some things.
10:29:06 15 MR. McGUIRE: Okay.
10:29:07 16 VIDEOGRAPHER: We are off the record. And
10:29:09 17 the time is 10:29.
10:29:10 18 (Recess.)
10:46:46 19 VIDEOGRAPHER: We are back on the record.
10:50:11 20 The time is 10:50.
10:50:13 21 BY MR. KODSI:
10:50:13 22 Q Dr. Witschi, I'd like to change focus a
10:50:18 23 little bit and go through some of the files that we
10:50:20 24 introduced earlier and ask you some questions about
10:50:22 25 those. The first one, you've got it right in front of
10:50:25 26 you. Good. Is Exhibit 549. I think we talked -- the
10:50:30 27 cover page there is a letter from Mr. McGuire to Pat
10:50:33 28 Cafferty. That's not a letter you've seen before?
Vail, Christians & Associates (619)544-8344 465
10:50:36 1 A No, I don't think so.
10:50:36 2 Q I don't need to talk about that with you.
10:50:38 3 MR. McGUIRE: Just, for the record, I do
10:50:40 4 think it is in his file. He may not recognize it.
10:50:42 5 MR. KODSI: Okay.
10:50:42 6 MR. McGUIRE: But it wasn't Bates stamped at
10:50:44 7 the time, and I think it was Bates stamped after we sent
10:50:48 8 it to him because it was a transmittal. It makes no
10:50:51 9 difference. Go ahead.
10:50:53 10 BY MR. KODSI:
10:50:53 11 Q The next page of Exhibit 549 is a letter from

10:50:58 12 Mr. McGuire to you dated June 22nd, 2000?

10:51:01 13 A Yes.

10:51:01 14 Q Do you recognize that letter?

10:51:02 15 A Yes.

10:51:02 16 Q And that letter indicates that he has -- he

10:51:07 17 sent you three separate documents with that letter. Do

10:51:10 18 you recognize the documents, as they're described?

10:51:13 19 A Every single one.

10:51:15 20 Q Okay. Did you review those?

10:51:16 21 A Yes.

10:51:16 22 Q Are you relying on any of those documents for

10:51:19 23 opinions you intend to offer in this case?

10:51:25 24 A I don't know.

10:51:36 25 Q Let me -- let me go back then. Did you and

10:51:39 26 Mr. McGuire discuss why he sent you those documents?

10:51:47 27 A This was some additional material I had to

10:51:49 28 review because at least two of the documents, number two
Vail, Christians & Associates (619)544-8344 466

10:51:53 1 and three, refer to work I did.

10:51:56 2 Q Did you form any opinions while reading --

10:52:00 3 while reading those documents?

10:52:02 4 A No. Because they were answers to a document

10:52:10 5 which I have not seen so far. So I can't evaluate the

10:52:16 6 answers.

10:52:16 7 Q I'm not sure what you're referring to when

10:52:18 8 you say a document you haven't seen so far.

10:52:21 9 A The number two.

10:52:27 10 Q And when you say number two, probably just to

10:52:30 11 make the record clear, we're talking about a script?

10:52:32 12 A The script.

10:52:33 13 Q Of a presentation made by Dr. Christopher

10:52:35 14 Coggins at the NTP on December 2nd --

10:52:38 15 A Yes.

10:52:38 16 Q -- 1998?

10:52:39 17 A Yes. The --

10:52:40 18 Q Wait. We can't talk at the same time. And

10:52:42 19 that's my fault. Let's just start over so that the record

10:52:46 20 is clear.

10:52:47 21 Let's talk first about you were provided a

10:52:51 22 script of a presentation made by Dr. Coggins at the NTP on

10:52:56 23 December 2nd, 1998, correct?

10:52:57 24 A Yes.

10:52:57 25 Q And why don't you describe what you were

10:53:01 26 discussing earlier with respect to that document.

10:53:04 27 A From what I could gather from this script and

10:53:11 28 from some general things, I know how things work,
Vail, Christians & Associates (619)544-8344 467

10:53:15 1 Dr. Coggins must have been invited to give his comments to

10:53:21 2 a doctor that was prepared for the National Toxicology

10:53:26 3 Program.

10:53:29 4 Q So you view that script as comments by

10:53:32 5 Dr. Coggins about a document that was prepared for the

10:53:36 6 National Toxicology Program?

10:53:38 7 A Prepared for or prepared by.

10:53:40 8 Q Okay. And that document that was prepared

10:53:42 9 for or by the National Toxicology Program is not something

10:53:46 10 you've seen?

10:53:47 11 A No.

10:53:47 12 Q And you haven't seen it to this date?

10:53:50 13 A No.

10:53:51 14 Q Okay. That's what I was trying to understand

10:53:53 15 when you said it was a document you hadn't seen before.

10:53:56 16 Now, number three on this letter refers to a

10:53:59 17 scientific paper prepared by Dr. Coggins and other
10:54:03 18 scientists at Lorillard.

10:54:04 19 Have you seen that document?

10:54:07 20 A Number three is the extended version of
10:54:13 21 number two.

10:54:13 22 Q Okay. Did you form any opinions about those
10:54:18 23 documents when you read them?

10:54:20 24 A I can't.

10:54:24 25 Q Have you and Mr. McGuire talked about any
10:54:27 26 testimony you might offer about those documents?

10:54:29 27 A I really can't. I would like to see the
10:54:36 28 original document before I can comment on the response.

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10:54:39 1 Q And the original --
10:54:41 2 MR. McGUIRE: I'm just -- I don't want to
10:54:43 3 interrupt.
10:54:43 4 Isn't that what you told me, that you want to
10:54:46 5 see this other document?

10:54:48 6 THE WITNESS: Yes.
10:54:48 7 MR. McGUIRE: So.

10:54:49 8 BY MR. KODSI:
10:54:49 9 Q And this document that you need to see before
10:54:51 10 you can comment on these is something you haven't seen yet?

10:54:54 11 A I haven't seen it. I know it exists.
10:54:57 12 MR. KODSI: Okay. And all I'll ask, for the
10:55:00 13 record, is that if you see this new document and form any
10:55:03 14 additional opinions and plan on testifying about that,
10:55:05 15 that we be given proper notice. And we'll just go from
10:55:08 16 there.

10:55:09 17 I guess that's fair, Mr. McGuire?
10:55:10 18 MR. McGUIRE: Yeah. However, if these
10:55:12 19 opinions involve rebuttal, then the answer is, no, you'll
10:55:17 20 get rebuttal when rebuttal is there. So.
10:55:20 21 MR. KODSI: Understood.

10:55:21 22 BY MR. KODSI:
10:55:23 23 Q Okay. Let's flip to the next page, and
10:55:25 24 rather than mark these as sub exhibits unless counsel at
10:55:28 25 the table has a concern about that, these are Bates
10:55:31 26 numbered. They're part of Exhibit 549. I'm just going to
10:55:33 27 refer to the Bates number. I just think that makes it
10:55:36 28 easier.

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10:55:37 1 We're flipping to the next page of
10:55:39 2 Exhibit 549, Dr. Witschi, and I'm just going to read the
10:55:42 3 Bates number at the bottom of the page into the record.
10:55:45 4 That is PX-HW-000022.
10:55:52 5 Do you recognize that document?

10:55:55 6 A Yes.

10:55:56 7 Q Could you describe that for me. What is that?

10:55:59 8 A This is a letter I wrote to Mr. McGuire,
10:56:07 9 asking him to put into my file additional papers I was
10:56:15 10 going to rely to in my testimony.

10:56:18 11 Q And that's your signature at the bottom of --
10:56:23 12 A Yes.
10:56:24 13 Q -- this letter? And at the top of the
10:56:27 14 letter, you say you wish to use the following as
10:56:30 15 additional evidence.

10:56:31 16 A Yes.

10:56:31 17 Q What did you mean by additional evidence?

10:56:35 18 A I was told that if I was going to read
10:56:40 19 something and was using this in my testimony or in my
10:56:46 20 deposition, you needed to know a few days ahead what it
10:56:52 21 was.

10:56:54 22 Q And it's your opinion that you're using the
10:56:57 23 documents you site here in this exhibit for your testimony?
10:57:00 24 A The ones for the report of the scientific
10:57:06 25 committee, the SCOTH report.
10:57:09 26 Q Okay. You're not using the document
10:57:12 27 entitled, "The Cigarette Papers" --
10:57:14 28 A No.
Vail, Christians & Associates (619)544-8344 470
10:57:15 1 Q -- for any opinions you have in this case?
10:57:22 2 Let's talk about -- let me back up.
10:57:24 3 Earlier today you described going to the
10:57:26 4 library and trying to get some new materials, what was the
10:57:29 5 recent information out there about ETS and lung cancer.
10:57:31 6 Is that what this list --
10:57:32 7 A That's this list.
10:57:34 8 Q Is there anything else that you got from the
10:57:35 9 library that's not revealed in this letter?
10:57:38 10 A Yes.
10:57:38 11 Q What would that be?
10:57:39 12 A This was the actual paper.
10:57:42 13 Q Is that the Hackshaw and Law review?
10:57:44 14 A No. In British Medical Journal, 1997.
10:57:49 15 Q Is that the meta-analysis?
10:57:51 16 A Yes.
10:57:54 17 Q Have you read that Hackshaw and Law
10:58:03 18 meta-analysis?
10:58:04 19 A Yes.
10:58:05 20 Q And just for the court reporter, that's
10:58:07 21 m-e-t-a dash analysis.
10:58:10 22 I'm sorry. You said you have read it?
10:58:16 23 A I have read ti.
10:58:17 24 Q Are you relying on that meta-analysis for any
10:58:20 25 opinions you have in this case?
10:58:22 26 A Yes.
10:58:25 27 Q And what would those be?
10:58:28 28 A Well, the SCOTH report very much relied on
Vail, Christians & Associates (619)544-8344 471
10:58:38 1 that paper. And so I was curious. I looked it up.
10:58:47 2 MR. McGUIRE: How do you spell SCOTH?
10:58:57 3 THE WITNESS: S-C-O-T-H.
10:59:01 4 MR. McGUIRE: And is that --
10:59:02 5 THE WITNESS: That's the Scientific Committee
10:59:05 6 on Tobacco and Health. S-C-O-T-H.
10:59:06 7 MR. McGUIRE: Okay. And that's the United
10:59:09 8 Kingdom report?
10:59:10 9 THE WITNESS: That's the United Kingdom
10:59:13 10 report, yes.
10:59:13 11 MR. McGUIRE:
10:59:13 12 (Exhibit 553 was marked for identification.)
10:59:13 13 BY MR. KODSI:
10:59:13 14 Q Dr. Witschi, I've handed you what's been
10:59:33 15 marked as Exhibit 553. Is that the SCOTH report you were
10:59:39 16 just referring to?
10:59:40 17 A The version I had came off the Net, and it
10:59:40 18 looks slightly different. But I think, yes, that's
10:59:59 19 from -- yeah.
11:00:06 20 Q Are you relying on the SCOTH report for any
11:00:09 21 opinions that you have regarding ETS in this case?
11:00:12 22 A Yes.
11:00:12 23 Q And what would that be?
11:00:16 24 A That's the conclusion which is essentially
11:00:26 25 key message No. 2, "Passive smoking is a cause of lung
11:00:30 26 cancer and childhood respiratory disease."

11:00:47 27 Q Okay. Do you find the SCOTH report to be
11:00:50 28 authoritative?
Vail, Christians & Associates (619)544-8344 472

11:00:51 1 A Yes.

11:00:51 2 Q And you agree with the conclusions reached in
11:00:54 3 that report?
11:00:55 4 A Yes.

11:00:56 5 Q And, as you said earlier -- and I know this
11:01:01 6 is repetitive. I just want to make sure.
11:01:03 7 It is a document you plan on relying upon for
11:01:06 8 the opinions you are going to offer in this case?
11:01:10 9 A Yes.

11:01:10 10 Q Okay. Now, let's go through some of the
11:01:35 11 individual studies. The first Boffetta study that you
11:01:43 12 cite there in your letter to Mr. McGuire, have you
11:01:48 13 reviewed that study?
11:01:49 14 A Yes.

11:01:50 15 Q And you're relying on that study for opinions
11:01:54 16 you intend to offer in this case?
11:01:56 17 A Yes.

11:01:57 18 Q And what are you relying on that study for?
11:02:01 19 A It's a very large study which essentially
11:02:07 20 comes to the conclusion that exposure to environmental
11:02:12 21 tobacco smoke carries an, albeit, small risk for lung
11:02:21 22 cancer.

11:02:21 23 Q In fact, Dr. Witschi, is it your
11:02:24 24 understanding that the Boffetta study is the largest study
11:02:27 25 ever done on environmental tobacco smoke and lung cancer?
11:02:30 26 A I wouldn't know exactly.

11:02:37 27 Q Would you agree with me that the larger the
11:02:40 28 study, the greater the ability of the study to produce
Vail, Christians & Associates (619)544-8344 473

11:02:46 1 statistically significant results?
11:02:49 2 MR. McGUIRE: Incomplete hypothetical.
11:02:53 3 THE WITNESS: What do you mean by large or
11:02:56 4 small study?
11:02:57 5 BY MR. KODSI:

11:02:57 6 Q The number of cases and the number of
11:03:00 7 controls.
11:03:00 8 MR. McGUIRE: Is this an epidem -- you want
11:03:03 9 him to answer in terms of epidemiologic studies?
11:03:06 10 MR. KODSI: Good point. Let me rephrase.
11:03:08 11 BY MR. KODSI:

11:03:08 12 Q The larger an epidemiologic study on ETS and
11:03:12 13 lung cancer with respect to the number of cases and
11:03:16 14 controls, the better that study is able to develop
11:03:20 15 statistically significant results?
11:03:21 16 MR. McGUIRE: All of the things -- I mean,
11:03:23 17 it's incomplete.
11:03:24 18 MR. KODSI: All other things equal.
11:03:26 19 MR. McGUIRE: Okay.
11:03:28 20 THE WITNESS: Not necessarily.
11:03:29 21 BY MR. KODSI:

11:03:29 22 Q Let's take a look at the Boffetta study.
11:04:11 23 We're on 554. If you can put that little sticker there,
11:04:15 24 Dr. Witschi.
11:04:17 25 MR. McGUIRE: I just wanted to note for the
11:04:18 26 record that counsel has not produced additional documents,
11:04:21 27 copies, et cetera.
11:04:23 28 MR. KODSI: You can have one if you want.
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11:04:25 1 MR. McGUIRE: Thanks. Well, I was told I had
11:04:26 2 to produce one for everybody in the room, last time.

11:04:28 3 MR. KODSI: Traveling from the East Coast,
11:04:30 4 I --
11:04:30 5 MR. McGUIRE: I agree with you, and I'm only
11:04:33 6 traveling from Fifth Avenue. I just want to point out
11:04:37 7 that I'm just not the only one who's practical here.
11:04:41 8 (Exhibit 554 was marked for identification.)
11:04:50 9 BY MR. KODSI:
11:04:50 10 Q Dr. Witschi, this is a study -- you've been
11:04:53 11 handed what's been marked as Exhibit 554, correct?
11:04:57 12 A Yes.
11:04:59 13 Q And, actually, for clarification, I think I'm
11:05:02 14 going to go ahead and hand you -- I'm going to hand you
11:05:31 15 what's marked as Exhibit 555. But I do -- even though
11:05:35 16 that study is thicker, for some reason, have extra copies
11:05:39 17 of it. I'm not quite sure why.
11:05:40 18 (Exhibit 555 was marked for identification.)
11:05:43 19 BY MR. KODSI:
11:05:43 20 Q Do you recognize that study as well?
11:05:51 21 A Yes.
11:05:51 22 Q And Exhibit 555 is the second Boffetta
11:05:54 23 study --
11:05:54 24 A Yes.
11:05:55 25 Q -- that you have in your letter to
11:05:57 26 Mr. McGuire; is that correct?
11:05:59 27 A That's correct.
11:06:04 28 Q And the reason I handed you both of these
Vail, Christians & Associates (619)544-8344 475
11:06:07 1 simultaneously, is it your understanding that Exhibit 554
11:06:13 2 reports a subset of the data that's reported in Exhibit
11:06:16 3 555?
11:06:21 4 A I think so, yes.
11:06:22 5 Q Okay. Let's talk first about Exhibit 554,
11:06:37 6 which is the smaller study. And, for the record, it's
11:06:39 7 entitled Exposure to ETS and Risk of Adenocarcinoma of the
11:06:44 8 Lung, by Boffetta, et al.
11:06:47 9 In your April 10th deposition, you and I
11:06:55 10 talked in a little bit of detail about the concept of
11:06:58 11 statistical significance. Do you remember that?
11:07:01 12 A Yes.
11:07:01 13 Q And you thought you -- you explained that
11:07:05 14 statistical significance was a very important concept in
11:07:08 15 both toxicology and epidemiology?
11:07:12 16 A Yes.
11:07:13 17 Q And just for an example, in one of your mice
11:07:18 18 studies, the animals exposed to ETS actually had fewer
11:07:27 19 malignant tumors than the animals exposed to fresh air,
11:07:31 20 but those results weren't statistically significant and
11:07:34 21 therefore that didn't prove that ETS caused fewer
11:07:37 22 malignant tumors, correct?
11:07:39 23 A Can you --
11:07:39 24 Q Do you remember that?
11:07:40 25 A I know what you're talking about, but the way
11:07:43 26 you formulated it, it didn't sound right.
11:07:45 27 Q Okay. Do you know what I'm talking about?
11:07:47 28 A I know what you're talking about.
Vail, Christians & Associates (619)544-8344 476
11:07:49 1 Q Why don't you reformulate it so that the
11:07:51 2 record is clear, the point I'm trying to make.
11:07:54 3 A Running the statistical tests within those
11:07:57 4 two groups did not allow me to conclude that there was a
11:08:06 5 difference at the level of .05.
11:08:14 6 Q And when you can't conclude that there's a
11:08:16 7 difference at the level of .05, then you can't conclude

11:08:18 8 that there's a statistically significant difference
 11:08:22 9 between a control group and an exposed group?
 11:08:26 10 A It depends really how you choose your level
 11:08:28 11 of what you call the insignificant.
 11:08:32 12 Q What level do -- in the field of toxicology,
 11:08:35 13 is there a level that toxicologists use as a standard to
 11:08:39 14 consider statistical significance?
 11:08:41 15 A Most of the time or practically all the time,
 11:08:45 16 yes, they do.
 11:08:46 17 Q And what level would that be?
 11:08:47 18 A This would be .05, but I could think of
 11:08:50 19 situations where this might not apply.
 11:08:52 20 Q Why don't you give me examples of that?
 11:08:55 21 A Well, it makes a difference what level of
 11:08:58 22 significance you select when you test anticancer drugs as
 11:09:03 23 opposed to when you are testing parachutes.
 11:09:06 24 MR. McGUIRE: When you are testing what?
 11:09:07 25 THE WITNESS: Parachutes.
 11:09:09 26 MR. KODSI: Parachutes.
 11:09:10 27 MR. McGUIRE: Okay. Thank you.
 11:09:11 28 BY MR. KODSI:
 Vail, Christians & Associates (619)544-8344 477
 11:09:11 1 Q Why don't you give me a -- I think I
 11:09:13 2 understand what you're getting at there, but I'll let you
 11:09:16 3 elaborate further.
 11:09:17 4 A If you test parachutes at the level of .05,
 11:09:20 5 you are ready to accept that one out of 20 parachutes is
 11:09:24 6 going to fail, which clearly is unacceptable.
 11:09:27 7 If you test anticancer drugs at the level of
 11:09:32 8 .3, you would expect that -- or .5, maybe, you would
 11:09:42 9 expect that your drug works only in half the cases, which
 11:09:45 10 would be good for an anticancer drug.
 11:09:48 11 Q I see where you're going with that. If you
 11:09:53 12 are testing whether or not exposure to a substance might
 11:09:57 13 cause cancer, the standard level the toxicologists would
 11:10:00 14 use there is .05?
 11:10:02 15 A Yes.
 11:10:02 16 Q And is --
 11:10:03 17 A But if you would test whether a substance
 11:10:10 18 cures cancer, you would be happy.
 11:10:14 19 Q Understood. If you're testing the benefit of
 11:10:16 20 a substance, you would be happy having a wider or lower
 11:10:22 21 significant -- statistically significant test, because you
 11:10:27 22 still may be helping people?
 11:10:28 23 A In the case of cancer, correct, yes.
 11:10:31 24 Q All right. Now, that principle also applies
 11:10:33 25 to epidemiology, correct, that if you're studying whether
 11:10:36 26 a substance may cause disease in man, the standard test
 11:10:41 27 for statistical significance is at the .05 level?
 11:10:48 28 A Most of the time.
 Vail, Christians & Associates (619)544-8344 478
 11:10:51 1 MR. McGUIRE: It's vague and ambiguous,
 11:10:53 2 incomplete hypothetical, as phrased.
 11:10:56 3 When you're talking about studies and stuff
 11:11:01 4 like that, are you talking about one study? A group of
 11:11:04 5 studies? A review of studies?
 11:11:05 6 BY MR. KODSI:
 11:11:05 7 Q Actually, the norm of the field, to the
 11:11:08 8 extent you know, in epidemiology, is to use a .05 test for
 11:11:13 9 statistical significance?
 11:11:14 10 MR. McGUIRE: Same objection.
 11:11:20 11 THE WITNESS: I could say yes if you're
 11:11:22 12 talking about experiments in toxicology. I have not -- I

11:11:28 13 am not familiar with the entire field of epidemiology to
 11:11:33 14 assert that this is the norm for the field.
 11:11:36 15 BY MR. KODSI:
 11:11:36 16 Q Understood. Let's -- let's talk
 11:11:40 17 specifically -- rather than about a group of studies,
 11:11:43 18 let's talk specifically about the Boffetta study that we
 11:11:47 19 marked as Exhibit 554.
 11:11:49 20 You understand that in that study, when
 11:11:55 21 evaluating the results for statistical significance, they
 11:11:58 22 used the .05 test?
 11:12:02 23 A Yes.
 11:12:02 24 Q And it's just easier for me to say it this
 11:12:06 25 way. You understand the .05 test is the same as using a
 11:12:10 26 95-percent confidence interval?
 11:12:14 27 A Yes.
 11:12:14 28 Q Okay. Now, in that entire paper, are you
 Vail, Christians & Associates (619)544-8344 479
 11:12:20 1 aware that the only statistically significant result that
 11:12:24 2 they report is a statistically significant result in Table
 11:12:33 3 2? If you flip to Table 2 on page 636. And if you look
 11:12:44 4 at the last number in that table where it says 10.1 plus.
 11:12:53 5 A No. You've lost me.
 11:12:56 6 Q Right there.
 11:12:59 7 A Oh.
 11:13:10 8 Q Now, that is the only statistically
 11:13:12 9 significant result reported in that entire paper --
 11:13:15 10 A Uh-huh.
 11:13:16 11 Q -- Dr. Witschi?
 11:13:18 12 A Yes.
 11:13:18 13 Q What does that result show?
 11:13:21 14 A To me, it does really not show anything.
 11:13:26 15 What this paper attempts to show is whether ETS causes
 11:13:37 16 more adenocarcinomas than squamous cell carcinomas. I'm a
 11:13:43 17 lumpner. To me, lung cancer is lung cancer. And the other
 11:13:49 18 thing is I do not think nature discriminates. There are
 11:13:58 19 very, very few examples where cancers are agent-specific.
 11:14:04 20 Q I understand. But I guess what I'm asking
 11:14:11 21 you is what -- reading that one statistically significant
 11:14:16 22 result in Table 2, what does that show?
 11:14:26 23 Now, whether or not you agree with what it
 11:14:32 24 shows is a separate issue. We can talk about that
 11:14:34 25 later. But what does -- what does that result show?
 11:14:37 26 A It shows that longer than ten years' exposure
 11:14:40 27 during childhood, you have an increased risk of
 11:14:43 28 adenocarcinoma. That's the way I just read it.
 Vail, Christians & Associates (619)544-8344 480
 11:14:46 1 Q Doesn't that actually show that if a child is
 11:14:48 2 exposed to ETS for more than ten years that they would
 11:14:52 3 have fewer adenocarcinomas than people who that not
 11:14:56 4 exposed to ETS?
 11:14:57 5 A Oh, yes. That's the odds ratio. Yes, that's
 11:15:05 6 lower.
 11:15:05 7 Q So whether or not we agree with that
 11:15:07 8 conclusion, I'm going to put that aside. If you just look
 11:15:10 9 at the data in Table 2, the only statistically significant
 11:15:14 10 result in that entire paper shows that children exposed to
 11:15:17 11 ETS have fewer lung tumors than children not exposed to
 11:15:22 12 ETS?
 11:15:28 13 A Yes.
 11:15:28 14 Q And as you look through the paper, you see no
 11:15:33 15 statistically significant result showing an increase in
 11:15:37 16 risk due to ETS, correct?
 11:15:39 17 A I think that's a sub sample of a larger study.

11:15:42 18 Q Right. We're going to go to the larger study.
 11:15:44 19 A Yeah.
 11:15:45 20 Q But as we look at this paper, Exhibit 554,
 11:15:48 21 you would agree with me that it does not report one
 11:15:51 22 statistically significant increase in risk of lung cancer
 11:15:54 23 attributable to ETS?
 11:15:56 24 A Yes.
 11:15:56 25 Q Okay. That's a "yes," my statement was
 11:15:59 26 accurate?
 11:16:00 27 A Yes.
 11:16:00 28 Q Okay. Now let's go to the larger paper. And
 Vail, Christians & Associates (619)544-8344 481
 11:16:11 1 that has been marked as Exhibit 555, right? And, just,
 11:16:22 2 for the record, let me just read the title in. It is a
 11:16:25 3 multicenter Case-Control Study of Exposure to
 11:16:28 4 Environmental Tobacco Smoke and Lung Cancer in Europe,"
 11:16:31 5 written by Boffetta, B-o-f-f-e-t-t-a, et al.
 11:16:38 6 Now, why don't you generally describe for me
 11:16:46 7 what you're relying on this study for?
 11:16:50 8 A Essentially, what the conclusions they come
 11:16:56 9 to that our results indicate no association between
 11:16:59 10 childhood exposure to ETS and lung cancer, which had been
 11:17:04 11 for a long time a bone of contention. And then again "We
 11:17:08 12 did find weak evidence of a dose-response relationship
 11:17:12 13 between risk of lung cancer and exposure to spousal and
 11:17:18 14 workplace ETS."
 11:17:20 15 So like many other studies, it shows an
 11:17:25 16 increased risk in the level of about 20 to 30 percent.
 11:17:32 17 Q Is it your understanding that the increased
 11:17:34 18 risk that you just discussed for spousal exposure to ETS
 11:17:38 19 was statistically significant in this study?
 11:17:41 20 A Not according to the confidence intervals
 11:17:45 21 they provide.
 11:17:45 22 Q Which is the 95-percent confidence interval?
 11:17:48 23 A Which is the 95-percent confidence interval.
 11:17:50 24 Q And, again, in concluding that there was no
 11:17:53 25 risk for childhood exposure to ETS, isn't it true that
 11:17:56 26 that result was statistically significant?
 11:18:07 27 A Can you say this again.
 11:18:09 28 Q Okay. The easiest way would probably be to
 Vail, Christians & Associates (619)544-8344 482
 11:18:13 1 look in the abstract under "results" on the first page.
 11:18:25 2 It's in the middle of the column.
 11:18:27 3 A Yes.
 11:18:27 4 Q It says, "ETS exposure during childhood was
 11:18:30 5 not associated with an increased risk of lung cancer," and
 11:18:33 6 then they give the odds ratio of .78 with a 95-percent
 11:18:38 7 confidence interval of .64 to .96?
 11:18:41 8 A Yes.
 11:18:42 9 Q So for that study, again, they determine that
 11:18:46 10 children not exposed to ETS had more lung cancer than
 11:18:50 11 children exposed to ETS?
 11:18:51 12 A Yes. But --
 11:18:57 13 Q But?
 11:19:01 14 A Okay. Nothing.
 11:19:03 15 Q Now --
 11:19:04 16 MR. McGUIRE: You can -- you can feel free
 11:19:06 17 to -- I mean, he hasn't told you at this time at least
 11:19:09 18 that he doesn't want to discuss it. He's told you that --
 11:19:15 19 you know, he hasn't stopped you from explaining --
 11:19:17 20 MR. KODSI: Sure.
 11:19:17 21 MR. McGUIRE: -- if you wish to. If you
 11:19:19 22 don't wish to, that's okay. I'll ask you later on at the

11:19:21 23 time of trial. We don't have to talk about it now if they
11:19:26 24 don't want to.
11:19:27 25 BY MR. KODSI:
11:19:27 26 Q Is there anything you want to explain about
11:19:33 27 that, Dr. Witschi?
11:19:35 28 A The -- as I said, I'm not an epidemiologist,
Vail, Christians & Associates (619)544-8344 483
11:19:43 1 and I do not necessarily understand statistics. But
11:19:48 2 looking at those confidence intervals, the children going
11:19:53 3 up to .96 and in the other studies, they're going down to
11:20:00 4 .94, to come only based on this study to definite
11:20:11 5 conclusions, to me, would look somewhat questionable.
11:20:15 6 Q Are you familiar with other studies that
11:20:20 7 have looked at this issue of childhood exposure to ETS?
11:20:25 8 A Yes.
11:20:25 9 Q And have they also reached similar
11:20:29 10 conclusions?
11:20:30 11 A They reach similar conclusions, yes. I mean,
11:20:33 12 the one I recall right now is I think it was in 1994 or
11:20:39 13 so, a Tredaniel study, T-r-e-d-a-n-e-i-l. That's the
11:20:49 14 author's name, which came to this conclusion.
11:20:53 15 And to the best of my knowledge, there's
11:21:00 16 nothing in the literature which suggests that children
11:21:05 17 exposed to ETS had a higher risk of lung cancer. But
11:21:11 18 that's to the best of my present knowledge.
11:21:19 19 Q Now, I want to revisit an issue here. We
11:21:19 20 talked a lot about your animal studies and the recovery
11:21:23 21 period you used in those studies, during your first two
11:21:26 22 days of deposition. Do you remember?
11:21:27 23 A Yes.
11:21:28 24 Q And one of the justifications you used for
11:21:31 25 the recovery period is that after cessation of exposure,
11:21:35 26 sometimes the risk goes up, correct?
11:21:39 27 A Yes.
11:21:39 28 Q But you didn't have an example for how ETS
Vail, Christians & Associates (619)544-8344 484
11:21:47 1 exposure might fit the model you used with the recovery
11:21:52 2 period, correct?
11:21:53 3 A Correct.
11:21:53 4 Q Doesn't the childhood exposure to ETS model
11:22:00 5 simulate the recovery period you use in your animal
11:22:04 6 studies?
11:22:06 7 A Not necessarily at the front end.
11:22:09 8 Q Why don't you explain for me.
11:22:12 9 A Well, we don't know to how much the children
11:22:21 10 were exposed. This is -- where is it might have been too
11:22:29 11 short.
11:22:30 12 The second thing is we do not know -- or I do
11:22:33 13 not know. I might not have read the paper carefully
11:22:37 14 enough. -- how long were those children followed.
11:22:41 15 If they had been followed only ten years
11:22:45 16 after childhood, then I would say that time period is too
11:22:52 17 short.
11:22:57 18 Q What time period would not be too short?
11:23:00 19 MR. McGUIRE: Okay. Let's just clarify what
11:23:01 20 you both are talking about here. When you say too short
11:23:04 21 and you're asking about this, is this the time to develop
11:23:07 22 lung disease?
11:23:08 23 THE WITNESS: Lung cancer, yes.
11:23:10 24 MR. McGUIRE: Okay. Lung cancer.
11:23:11 25 BY MR. KODSI:
11:23:11 26 Q Okay. That's a good clarification. Thanks.
11:23:14 27 What time would -- what time would it not be

11:23:17 28 too short to develop lung disease?
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11:23:19 1 A Lung disease, or lung cancer?

11:23:21 2 Q Lung cancer.

11:23:22 3 A From what we know, I think that what's

11:23:28 4 generally assumed to be the latency period for smoking,

11:23:31 5 active smoking and lung cancer, is in the order of about

11:23:37 6 30 to 40 years, maybe 25 to 40 years.

11:23:40 7 Q So if they didn't follow up with these

11:23:43 8 children until their forties or fifties, that would be

11:23:46 9 acceptable to you?

11:23:47 10 A What do you mean by being acceptable for me?

11:23:51 11 Q It would be acceptable to you that they had

11:23:54 12 an adequate follow-up time?

11:23:55 13 A Yes.

11:23:55 14 Q And that would be comparable to the recovery

11:23:58 15 period you use in your studies?

11:23:59 16 A There are two factors involved. One is

11:24:11 17 time. The other one is dose.

11:24:17 18 Q You -- and that was the point you made when

11:24:22 19 we earlier -- when we were talking about this earlier,

11:24:24 20 that we don't know how much the children were exposed to,

11:24:26 21 correct?

11:24:27 22 A Yes.

11:24:27 23 Q Is that the dose issue?

11:24:28 24 A Yes.

11:24:28 25 Q In fact, in -- for all the subjects in this

11:24:34 26 study, we don't know how much ETS they were exposed to, do

11:24:38 27 we?

11:24:39 28 A I don't think we do not know. I think the
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11:24:43 1 people who do those studies, they make good guesses. It

11:24:51 2 really would depend how rigorously do you want to define

11:24:59 3 dose.

11:24:59 4 Q Well, in your opinion in reviewing the

11:25:04 5 epidemiology on ETS and lung cancer, how rigorously do you

11:25:09 6 think they should define dose?

11:25:12 7 A That's -- I couldn't answer that one.

11:25:20 8 Q Because the manner in which the epidemiology

11:25:23 9 studies determine exposure is outside your expertise,

11:25:29 10 correct?

11:25:30 11 A Yes.

11:25:30 12 Q And you are -- you don't feel comfortable

11:25:33 13 evaluating epidemiology studies on ETS with respect to how

11:25:37 14 well they measured exposure?

11:25:39 15 MR. McGUIRE: Well, go ahead and answer.

11:25:41 16 That's a different question than the one

11:25:46 17 preceding it.

11:25:46 18 MR. KODSI: Yes, it is.

11:25:49 19 THE WITNESS: Again, I could probably tell

11:25:54 20 good exposure assessment from bad exposure assessment, but

11:25:59 21 over time, they have so many nuances involved that, again,

11:26:06 22 in the gray zones in the middle, I would have to leave

11:26:09 23 this to experts.

11:26:10 24 BY MR. KODSI:

11:26:10 25 Q And was the IARC study a good exposure

11:26:15 26 assessment? Bad exposure assessment, or in the gray

11:26:19 27 zone?

11:26:20 28 MR. McGUIRE: Okay. Would you clarify what
Vail, Christians & Associates (619)544-8344 487

11:26:22 1 you mean by IARC study.

11:26:24 2 MR. KODSI: Good point. I realized it just

11:26:26 3 after I asked it.

11:26:27 4 BY MR. KODSI:
11:26:27 5 Q Exhibit 555 that we've just been talking
11:26:29 6 about, the multicenter case control study. Do they do a
11:26:32 7 good exposure assessment, a bad exposure assessment, or
11:26:36 8 are they somewhere in the gray zone?
11:26:38 9 A I would say this is in the gray zone.
11:26:40 10 Q And I assume since Exhibit 554 is a subset of
11:26:49 11 the same data set, your answer would be the same for that
11:26:52 12 study as well?
11:26:53 13 A Yes.
11:26:53 14 Q Have you thought through at all prior to me
11:27:21 15 asking you these questions today about how the inability
11:27:26 16 of studies to find risk from childhood exposure relates to
11:27:30 17 the recovery period you use in your animal studies?
11:27:33 18 A No.
11:27:37 19 Q Let me ask you this: The A/J mouse has a --
11:27:41 20 and I think we went through some of this in the previous
11:27:44 21 deposition. So I'll try to be quick with it.
11:27:46 22 The A/J mouse has a life span of two years?
11:27:49 23 A About two years, yes.
11:27:50 24 Q So when you expose the A/J mouse to tobacco
11:27:55 25 smoke for five months -- well, two years equals 24 months,
11:27:59 26 right? I think we can all agree on that.
11:28:01 27 So when you expose the A/J mouse to tobacco
11:28:06 28 smoke for five months, you're exposing them to
Vail, Christians & Associates (619)544-8344 488
11:28:08 1 approximately one-fifth their life span?
11:28:12 2 A Yes.
11:28:13 3 Q And your recovery period is four months?
11:28:24 4 A Yes.
11:28:25 5 Q So that's approximately one sixth their life
11:28:31 6 span, correct?
11:28:31 7 A Yes.
11:28:33 8 Q Children who are exposed to ETS for 18
11:28:37 9 years, would you agree with me that that's approximately
11:28:41 10 one-fifth their life span, maybe a little bit higher than
11:28:46 11 one-fifth?
11:28:46 12 A No. This is a qualified no.
11:28:52 13 Q Why?
11:28:54 14 A The mice that are exposed are adult mice.
11:29:01 15 Children are children. It's not the same.
11:29:03 16 Q But you would agree with me that the 18
11:29:14 17 years is approximately one-fifth of the human life span,
11:29:20 18 maybe it's a little bit more than one-fifth?
11:29:23 19 A Yes.
11:29:23 20 Q And your recovery period in the human model
11:29:26 21 would be equal to somewhere between 10 and 15 years in a
11:29:30 22 human?
11:29:32 23 A Yes.
11:29:32 24 MR. McGUIRE: When you say -- I just want to
11:29:44 25 clarify this answer. Are you asking him to give you a --
11:29:48 26 that if you took five months and did the proportional
11:29:51 27 mathematics, that you would end up with one-fifth, or are
11:29:56 28 you asking him in a human whether the recovery period is
Vail, Christians & Associates (619)544-8344 489
11:29:59 1 five --
11:29:59 2 BY MR. KODSI:
11:30:00 3 Q I'm getting there next.
11:30:01 4 But I asked him -- right now, one-sixth of
11:30:04 5 the human life span is about 10 to 15 years?
11:30:08 6 A Well, this is -- this is elementary
11:30:15 7 arithmetic. It does not take into account that children
11:30:21 8 and juveniles are different than adults. And,

11:30:26 9 particularly, this also relates to cancer.

11:30:28 10 Q In many ways, juveniles are more sensitive to

11:30:32 11 cancer-causing agents, aren't they?

11:30:36 12 A I don't think so. I wouldn't know. If we

11:30:45 13 look at cancer, in general, we have a first wave of

11:30:53 14 cancers occurring about up to the age of ten, which are

11:30:59 15 some rare congenital cancers like kidney cancer or

11:31:03 16 retinoblastoma, but, really, the big peak of cancers in

11:31:09 17 this age group are leukemias.

11:31:13 18 And then they disappear, and there have been

11:31:19 19 very rare families of cancers which shows up in

11:31:22 20 teenagers. But they're extremely rare. And these are

11:31:27 21 osteosarcomas or chondrosarcomas.

11:31:35 22 And then we are pretty much over the hump,

11:31:38 23 most people are, until they are getting older.

11:31:40 24 Now, how this relates to exposure to

11:31:43 25 chemicals, we really do not know. And I really would not

11:31:50 26 know the answer. I couldn't, without doing much, much

11:31:57 27 more reading agree with you that children are more

11:32:00 28 sensitive in general.

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11:32:00 1 Q So, as we sit here today, you don't know

11:32:04 2 whether children are more, or less sensitive to the

11:32:07 3 development of carcinogenesis?

11:32:10 4 A What I would know is that cancers -- most

11:32:21 5 cancers are a associated risk advanced age.

11:32:35 6 Q And in many ways, is that why age is a

11:32:43 7 confounding factor that many of the ETS epidemiology

11:32:46 8 studies adjust for?

11:32:50 9 A In what sense?

11:32:51 10 Q Well, age is a factor that epidemiologists

11:32:57 11 look for when they're comparing their cases with their

11:33:01 12 controls, correct?

11:33:04 13 A But how would this impact on ETS --

11:33:07 14 ETS-induced lung cancer?

11:33:09 15 Q Well, if you have -- if you have a group of

11:33:14 16 cases that are ten years older than your controls,

11:33:18 17 wouldn't that confound the results of your epidemiologic

11:33:20 18 study on ETS and lung cancer?

11:33:22 19 A To the best of my knowledge, those factors

11:33:25 20 are corrected for by taking into account the age-adjusted

11:33:35 21 cancer rates. I think that's a standard procedure.

11:33:39 22 VIDEOGRAPHER: Excuse me, Counsel. I need to

11:33:41 23 do a tape change in about a minute.

11:33:44 24 MR. KODSI: This next question will be too

11:33:46 25 long. Go ahead and change it.

11:33:48 26 VIDEOGRAPHER: This concludes Tape 1 of the

11:33:49 27 deposition, and we are off the record at 11:33.

11:33:52 28 (Discussion off the record.)

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11:36:11 1 VIDEOGRAPHER: This begins Tape 2 of the

11:36:13 2 deposition of Hanspeter Witschi, and the time is 11:36.

11:36:18 3 BY MR. KODSI:

11:36:18 4 Q Dr. Witschi, we were talking about how the

11:36:25 5 epidemiology studies on ETS might adjust for age as a

11:36:32 6 confounding factor. And you indicated that to the best of

11:36:35 7 your knowledge, these are corrected for and you think it's

11:36:38 8 a standard procedure.

11:36:39 9 Is the procedure by which age is adjusted

11:36:42 10 something you're familiar with?

11:36:44 11 A No.

11:36:46 12 Q And in evaluating Exhibit 555 that we've

11:36:50 13 been talking about, the Boffetta study, did you evaluate

11:36:54 14 whether they adequately adjusted for age as a confounding
11:36:57 15 factor?
11:36:57 16 A No.
11:36:57 17 Q In any epidemiology study you've ever read on
11:37:06 18 ETS, have you evaluated whether they have adequately --
11:37:11 19 A No.
11:37:11 20 Q -- adjusted for age?
11:37:14 21 Sorry. Let me finish the question.
11:37:14 22 In any epidemiology study of ETS and lung
11:37:14 23 cancer that you have read, have you ever evaluated whether
11:37:14 24 they adequately adjusted for age as a confounding factor?
11:37:14 25 A No.
11:37:14 26 MR. KODSI: Okay. Now is a good time to
11:37:16 27 break for lunch.
11:37:18 28 VIDEOGRAPHER: We are off the record. The
Vail, Christians & Associates (619)544-8344 492
11:37:19 1 time is 11:37.
12:44:35 2 (Lunch recess.)
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Vail, Christians & Associates (619)544-8344 493
13:11:47 1 San Diego, California; Thursday, June 29, 2000; 1:12 p.m.
13:11:47 2
13:11:47 3 VIDEOGRAPHER: Good afternoon. We are back
13:11:51 4 on the record. The time is 1:11 -- 1:12.
13:11:56 5 BY MR. KODSI:
13:11:56 6 Q Dr. Witschi, when we finished off, I think we
13:12:00 7 were talking about a June 20th letter from you to Mr.
13:12:03 8 McGuire, talking about additional evidence that you wanted
13:12:06 9 to use in the case.
13:12:06 10 Do you still have that in front of you? It
13:12:10 11 was part of Exhibit 549.
13:12:12 12 A Yes.
13:12:19 13 Q Great. And we've talked about some of those
13:12:22 14 reference materials. We have not talked yet about the
13:12:24 15 third one there, the Zarizde study, Z-a-r-i-z-d-e, study.
13:12:31 16 Is that a study you're relying on for the
13:12:34 17 opinions --
13:12:35 18 A Yes.

13:12:35 19 Q -- you intend to give in this case? You need
13:12:39 20 to be real careful not to -- the reporter is going to have
13:12:41 21 a tough time. I know you anticipate my question, and I
13:12:44 22 appreciate that. But you have to wait until I'm done to
13:12:46 23 give the answer.
13:12:46 24 Again, that is a study that you're relying on
13:12:49 25 for the opinions that you're going to offer in this case?
13:12:51 26 A Yes.
13:12:51 27 Q Can you describe for me what you're relying
13:12:53 28 on that study for?
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13:12:54 1 A This is a case control study from Russia in
13:13:00 2 which women of smokers were asked about exposure to
13:13:09 3 environmental tobacco smoke. The risk, as in so many
13:13:12 4 other studies, again, was about 1.3. Except in this
13:13:16 5 study, the 95-percent confidence intervals were about one,
13:13:21 6 if I recall correctly.
13:13:22 7 Q It's your recollection that for some of what
13:13:47 8 this study looked for, that the confidence intervals were
13:13:51 9 above one?
13:13:52 10 A Yes.
13:13:52 11 Q And that study was also using Russian
13:13:56 12 cigarettes?
13:13:59 13 A There was an interesting remark apparently,
13:14:05 14 that for Papyrossi, the association was stronger. That's
13:14:14 15 what I recall from this study.
13:14:15 16 Q And do you recall that that study also found
13:14:23 17 no increase in risk for childhood exposure to ETS?
13:14:28 18 A I don't recall that one specifically.
13:14:30 19 Q And we haven't talked yet about the next item
13:14:36 20 on that letter is the Blot article.
13:14:39 21 A Yes.
13:14:39 22 Q That's B-l-o-t.
13:14:43 23 A Uh-huh.
13:14:43 24 Q Are you relying on that article for the
13:14:45 25 opinions you intend to offer?
13:14:46 26 A Yes.
13:14:47 27 Q And what are you relying on that article for?
13:14:50 28 A This is an editorial which appeared in the
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13:14:53 1 same issue of the Journal of the National Cancer
13:14:54 2 Institute, as did the Boffetta study. And the editorial
13:15:01 3 raised the question whether in view of the Boffetta study,
13:15:07 4 which showed an increased risk, yet confidence intervals
13:15:14 5 with slightly below one, what was the cumulative evidence,
13:15:20 6 the weight of the evidence for ETS being a carcinogen.
13:15:29 7 And the editorial came squarely down by saying even if you
13:15:33 8 have the study the weight of evidence, very strongly
13:15:40 9 suggests that, yes, ETS is a human lung carcinogen.
13:15:45 10 Q Now, when you say the weight of the evidence,
13:15:50 11 you're talking about all of the available epidemiology
13:15:53 12 studies in the literature?
13:15:55 13 A From what I could see of those, who wrote
13:16:00 14 those editorials are epidemiologists and associated -- I
13:16:06 15 forgot the exact definition they were. I'm thinking it
13:16:08 16 must be one of those Beltway.
13:16:11 17 Q When you say the Beltway, you mean from
13:16:13 18 Washington, D.C.?
13:16:15 19 A From Washington, D.C., yes. And they must
13:16:24 20 have sifted through all of the available evidence.
13:16:26 21 Q And that was one of the questions I wanted to
13:16:29 22 ask you. When we had your deposition on May 3rd, you had
13:16:35 23 indicated that you had read probably about three of the

13:16:37 24 epidemiology studies on ETS and lung cancer, correct?
13:16:41 25 A Correct.
13:16:42 26 Q Have you read any more studies in addition to
13:16:44 27 those three and the ones that we've been talking about
13:16:47 28 today?
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13:16:48 1 A Yeah. The Hackshaw study, yes.
13:16:54 2 Q The Hackshaw meta-analysis?
13:16:57 3 A The Hackshaw meta-analysis.
13:16:59 4 Now, I also -- when I became interested in
13:17:07 5 ETS, this was around 1951, 1952, I read a fair amount of
13:17:11 6 what came out at the time being. I do not recall specific
13:17:18 7 epidemiological studies. I know I have quite a few of
13:17:21 8 them in my files, but I couldn't recall exactly which ones
13:17:24 9 I might have read.
13:17:25 10 Q Did you mean to say when you became
13:17:30 11 interested in ETS in 1951?
13:17:32 12 A Sorry. 1991.
13:17:33 13 Q Okay. Okay. Now, the last study that we
13:17:47 14 haven't talked about that you cite in this letter to
13:17:50 15 Mr. McGuire is the Kreuzer, K-r-e-u-z-e-r?
13:17:54 16 A Yes.
13:17:54 17 Q And you're relying on that study for opinions
13:17:56 18 you intend to offer in this case?
13:17:58 19 A Yes.
13:17:58 20 Q And what are you relying on that study for?
13:18:00 21 A That's another case control study. This time
13:18:03 22 from Germany, and it shows a very strong -- or I mean,
13:18:08 23 again, 1.3, 1.4 range, if I recall correctly, of increased
13:18:16 24 risk for exposure to ETS, in transport. See, I don't
13:18:23 25 recall exactly what it was. It must have been in cars.
13:18:29 26 And so those also, I think if I recall correctly in the
13:18:34 27 workplace.
13:18:34 28 Q Are you sure it's the Kreuzer study that
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13:18:37 1 looked at cars, or was it the Zarizde study that looked at
13:18:42 2 cars?
13:18:42 3 A The transport was in the Kreuzer study. It
13:18:51 4 doesn't say cars. It says, I think, transport.
13:18:54 5 Q Do you know how they measured ETS exposure in
13:18:57 6 cars, or transport?
13:18:59 7 A I think the Kreuzer study was questionnaire.
13:19:01 8 Q So they asked people whether they were
13:19:03 9 exposed to ETS in their cars?
13:19:05 10 A I didn't see the questionnaire.
13:19:07 11 Q Would that be important in evaluating an ETS
13:19:13 12 epidemiology study, whether or not you could see the
13:19:15 13 questionnaire data?
13:19:18 14 MR. McGUIRE: You mean from his perspective
13:19:21 15 or --
13:19:21 16 MR. KODSI: From his perspective.
13:19:22 17 MR. McGUIRE: -- from the perspective of an
13:19:25 18 epidemiologist?
13:19:26 19 BY MR. KODSI:
13:19:26 20 Q From your perspective.
13:19:28 21 A It might be desirable, but it might not be
13:19:32 22 crucial.
13:19:33 23 Q Let me ask you a question about did you
13:19:38 24 notice that in the Boffetta study that we marked as
13:19:41 25 Exhibit 555 that they also looked at ETS exposure in
13:19:48 26 vehicles?
13:19:49 27 A Yes, they did.
13:20:07 28 Q And what conclusions did Boffetta reach about

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13:20:11 1 ETS exposure in vehicles?

13:20:12 2 A An overrisk estimate of 1.14 with confidence

13:20:23 3 intervals .88 to 1.48.

13:20:28 4 Q And do you know that if in the text of the

13:20:30 5 Boffetta study that they conclude that vehicles did not

13:20:33 6 represent an important source of ETS exposure?

13:20:36 7 Let me make it easy on you. Let me ask you

13:20:45 8 to turn to page 1445.

13:20:48 9 A They say it's not an important source, but

13:20:59 10 they also qualify their statement.

13:21:01 11 Q Okay. How do they qualify their statement?

13:21:09 12 A This is a multicenter study, and the results

13:21:12 13 were not consistent among the centers, which indicates to

13:21:15 14 me that with all the strengths of a multicenter study,

13:21:21 15 those have weaknesses because of the heterogeneity of the

13:21:26 16 material they were forced to work with.

13:21:28 17 Q Why don't you explain to me what you mean by

13:21:37 18 weaknesses because of the heterogeneity.

13:21:50 19 A Well, it's a simple question. Whether you

13:21:57 20 can, when it comes to collecting data, whether to

13:22:05 21 meticulousness, if that's a proper data, in which this

13:22:10 22 data are collected are strictly identical in many

13:22:14 23 different centers from many different European countries.

13:22:26 24 Having grown up in Europe, I have some ideas on that one.

13:22:29 25 Q I'm confused in that I don't understand what

13:22:33 26 you mean by how heterogeneity makes the study weaker. And

13:22:39 27 maybe I misunderstood you.

13:22:41 28 Are you implying that the heterogeneity of

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13:22:44 1 the Boffetta study somehow makes it weaker?

13:22:47 2 A I would not know exactly how to address this

13:22:59 3 in epidemiology. All I can tell you is in toxicology, if

13:23:05 4 you are sloppy, you're more likely than not to find no

13:23:10 5 differences. Do you want an example?

13:23:16 6 Q Why don't you give me an example.

13:23:17 7 A If we have, let's say, a food additive and we

13:23:25 8 feed it to animals. One group gets the food additive.

13:23:29 9 The other one gets the control diet. And we are

13:23:32 10 interested -- and this actually happened. We are

13:23:37 11 interested in showing it causes cancer. You're very

13:23:40 12 careful to always make sure that the right animals get the

13:23:46 13 right test diet.

13:23:47 14 However, if accidents happened and once in a

13:23:51 15 while the diets get mixed up, the control group gets the

13:23:57 16 other diet, due to sloppiness in how the experiments are

13:24:02 17 run, then you're not going to find any difference between

13:24:05 18 the two groups.

13:24:07 19 This, not exactly with cancer and food

13:24:11 20 additives, but with pesticides was a problem in the 1970s

13:24:16 21 where we have the very famous case where a testing lab, a

13:24:21 22 commercial testing lab certified so and so many pesticides

13:24:27 23 as being not toxic.

13:24:29 24 And when those guys were audited, it was

13:24:33 25 really found out they had done sloppy experiments. That's

13:24:36 26 what I meant.

13:24:37 27 Q And sloppy experiments could also result in

13:24:40 28 showing an increase in risk where there is none?

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13:24:43 1 A Not according to the second law of thermal

13:24:47 2 dynamics.

13:24:48 3 Q Why don't you explain that one for me.

13:24:50 4 A That's entropy, that's saying, left to

13:25:00 5 themselves, tend to even out. So, no, sloppy experiments
13:25:05 6 would not give you a false positive, I think.

13:25:13 7 Q Are you talking with respect to toxicology
13:25:16 8 now --

13:25:17 9 A Yes.

13:25:17 10 Q -- or what about epidemiology?

13:25:21 11 MR. McGUIRE: No foundation.

13:25:24 12 THE WITNESS: I wouldn't know.

13:25:29 13 BY MR. KODSI:

13:25:29 14 Q Let's move on in Exhibit 549, which is part
13:25:33 15 of your file. And I'm looking at -- do you need some time?

13:25:48 16 A No. It's here.

13:25:49 17 Q Okay. Flip a couple of pages to a May 25th
13:25:55 18 letter from Mr. McGuire to you. Not that one. That one.
13:26:00 19 There you go. Just, for the record, the Bates number at
13:26:03 20 the bottom right corner is PX-HW-000002.

13:26:11 21 A Yes.

13:26:11 22 Q This is a letter in which he again encloses
13:26:18 23 some materials to you?

13:26:19 24 A Yes.

13:26:19 25 Q Are these materials that you asked him for?

13:26:21 26 A No.

13:26:22 27 Q Do you know why he sent them to you?

13:26:28 28 A I think this was material I should review in
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13:26:33 1 view of what I have to testify. This is information I
13:26:36 2 should be made aware of.

13:26:37 3 Q Okay. Let's mark this one separately. It's
13:26:42 4 easier. Five -- we're on No. 556.
13:26:55 5 (Exhibit 556 was marked for identification.)

13:26:57 6 BY MR. KODSI:

13:26:57 7 Q Dr. Witschi, on the letter we were just
13:27:00 8 talking about, the first item Mr. McGuire sent you is a
13:27:04 9 defendant expert witness matrix. I've handed you Exhibit
13:27:07 10 556.

13:27:09 11 Is that the matrix that was referred to in
13:27:11 12 that letter?

13:27:11 13 A Yes.

13:27:12 14 Q I don't have any more questions. I just
13:27:15 15 wanted to get that verified for the record.

13:27:17 16 Let's move on to the second item that's
13:27:19 17 identified in the letter. It is a PM Europe Internet
13:27:24 18 information. And I believe that's actually contained in
13:27:32 19 Exhibit 549, correct?

13:27:33 20 A Yes.

13:27:34 21 Q It's the document that is marked from Bates
13:27:38 22 numbers C-IR-000001 through C-IR-000011.

13:27:54 23 A Yes.

13:27:55 24 Q Are you relying on that document for any
13:27:58 25 opinions you intend to offer in this case?

13:28:00 26 A I read it. And much of it sounded very
13:28:13 27 familiar.

13:28:13 28 Q In what way did it sound very familiar?
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13:28:16 1 A When I told you before I became interested in
13:28:22 2 ETS in 1992, and at this time, there were many things
13:28:30 3 which are in this document were written by people in the
13:28:35 4 open literature or not so open literature. And,
13:28:39 5 certainly, many of those points which came up and
13:28:46 6 sometimes some would mitigate it or became also public
13:28:51 7 comments for the OEHA document. So what I meant to say is
13:28:58 8 also, for example, in the paper by Dr. Huber, I knew when
13:29:04 9 it came out.

13:29:04 10 So in this sense, I looked on this document
13:29:08 11 as just a compilation of opinions which were -- what's the
13:29:17 12 word? Which were offered when the original EPA document
13:29:22 13 came out.

13:29:23 14 Q Have you formed any opinions about this
13:29:25 15 document?

13:29:27 16 A Not about this particular document I could
13:29:30 17 say I have any opinions about the contents, because, as I
13:29:34 18 said, many of those comments I saw later on.

13:29:40 19 Q So I just misunderstood. I think I might
13:29:44 20 have misunderstood you.

13:29:45 21 Did you say you don't have any opinions about
13:29:47 22 the document and you don't have any opinions about the
13:29:49 23 contents, or you do have opinions about the contents?

13:29:52 24 A This document -- it's kind of difficult to
13:30:02 25 explain how this happened in the context. Reading this
13:30:06 26 document, I had this deja vu feeling. I had seen many,
13:30:12 27 probably most of those comments before when I've informed
13:30:16 28 myself on the issues with ETS, but particularly the issues
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13:30:21 1 which were surrounding the original EPA study. And I also
13:30:26 2 came across many of those comments when Dr. Gori or Dr.
13:30:33 3 Witorsch talked to OEHA or I saw some of those comments or
13:30:42 4 points, maybe not verbatim, but in principle in the public
13:30:46 5 comments that were submitted to OEHA.

13:30:48 6 Q Have you talked with Mr. McGuire about any
13:30:56 7 testimony you intend to offer about this document, per se?

13:30:59 8 A No.

13:30:59 9 Q And, as I understand it, this document just
13:31:08 10 contains a lot of points that you have seen before in your
13:31:10 11 reading in the ETS literature?

13:31:12 12 A Yes.

13:31:13 13 Q Okay. As you read through this document, do
13:31:17 14 you have an opinion as to whether you agree or disagree
13:31:20 15 with the points contained in the document?

13:31:29 16 A There might be some. I wouldn't know exactly
13:31:37 17 I could agree. Some, I would disagree with.

13:31:40 18 Q But as we sit here today, there are none that
13:31:43 19 come to your mind that you feel strongly about?

13:31:45 20 A This document is dated, to some extent.

13:31:49 21 Q That's true. In your mind, we have to read
13:31:52 22 this document as of the time it was written?

13:31:54 23 A That's right.

13:31:54 24 Q Okay. All right. Let's move on to the next
13:31:57 25 document Mr. McGuire referenced in his May 25th letter,
13:32:01 26 which is some RJR Internet information. And I believe
13:32:05 27 that is also contained in this file that we've been
13:32:11 28 talking about. And I'll just read the Bates numbers into
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13:32:16 1 the record, Dr. Witschi. It's C-IR-000012 through
13:32:25 2 C-IR-000038; is that correct?

13:32:51 3 A Yes.

13:32:54 4 Q Has Mr. McGuire talked with you about why he
13:33:01 5 provided those documents to you?

13:33:06 6 A This reflects what J.R. (sic) Reynolds has to
13:33:13 7 say to the issue.

13:33:14 8 Q And have you formed any opinions while --
13:33:16 9 first of all, have you read those pages?

13:33:19 10 A I did not read them word by word. I looked
13:33:24 11 at them, yes.

13:33:24 12 Q And you understand that this comes from the
13:33:26 13 R.J. Reynolds Internet site?

13:33:30 14 A Yes.

13:33:30 15 Q In reading these pages, did you form any
13:33:33 16 opinions about them?
13:33:35 17 A Not really.
13:33:35 18 Q Okay. And do you plan on relying on anything
13:33:42 19 contained in that document for any opinions you intend to
13:33:44 20 offer in this case?
13:33:45 21 A No.
13:33:45 22 Q And have you discussed with Mr. McGuire about
13:33:51 23 testifying at all about those pages?
13:33:53 24 A No.
13:33:53 25 Q Okay. Let's move on to the next page in
13:33:57 26 Exhibit 549.
13:34:03 27 MR. McGUIRE: Can you just let him --
13:34:05 28 MR. KODSI: Sure. I'm going to read the
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13:34:07 1 Bates. It should be the next page after that letter. But
13:34:09 2 it's for the record PX-HW-000003.
13:34:16 3 MR. McGUIRE: Here you go.
13:34:24 4 MR. KODSI: It's right there.
13:34:30 5 BY MR. KODSI:
13:34:30 6 Q We're still on this one. It's tough going
13:34:33 7 through document numbers back and forth.
13:34:35 8 A Okay.
13:34:36 9 Q I think -- and maybe you can look at this and
13:34:51 10 this may be very easy -- is I see a message from you to
13:34:56 11 Mr. McGuire in the middle of the page that says I heard
13:34:59 12 about it but did not see it. I would like to see the
13:35:02 13 entire copy of the report.
13:35:03 14 Do you see where that is?
13:35:05 15 A Yes.
13:35:05 16 Q And is that from you to Mr. McGuire, or from
13:35:08 17 Mr. McGuire to you?
13:35:09 18 A This is from me to Mr. McGuire.
13:35:15 19 Q And what you're referring to there where you
13:35:17 20 say I heard -- or where you write, "I heard about it but
13:35:21 21 did not see it," is the NTP report on environmental
13:35:24 22 tobacco smoke?
13:35:25 23 A What I specifically meant was the
13:35:27 24 background -- well, first I thought it was the NTP report,
13:35:35 25 and that one I got. This was this document.
13:35:38 26 MR. McGUIRE: Okay. Just stop. He's
13:35:41 27 referring to the document that begins with DHHS-378.
13:35:49 28 MR. KODSI: Okay.
Vail, Christians & Associates (619)544-8344 506
13:35:50 1 MR. McGUIRE: Then. Go ahead.
13:35:51 2 THE WITNESS: Okay. I have to back up how
13:35:53 3 this all happened.
13:35:54 4 BY MR. KODSI:
13:35:54 5 Q Okay.
13:35:55 6 A I think it was in one of the depositions
13:35:57 7 someone mentioned to me -- or I don't know where from it
13:36:00 8 comes, but somehow mentioned to me that NTP had quoted my
13:36:04 9 papers. I also knew that the National Toxicology Program
13:36:09 10 reviews carcinogens on a yearly basis. When -- and I
13:36:16 11 thought this was in this report. When I got it, I found
13:36:19 12 out this report, DHHS-000378, is not referenced. And then
13:36:30 13 I found out that to every single item in the report exists
13:36:39 14 a background document, and that's the one I really wanted
13:36:44 15 to see.
13:36:44 16 Q Have you seen that background document?
13:36:47 17 A No. That's what we are talking this morning.
13:36:49 18 Q Okay.
13:36:50 19 A That's why I couldn't --

13:36:51 20 Q Okay.

13:36:52 21 A -- deal with Coggins' paper.

13:36:54 22 Q Okay. That's what I was trying to clarify.

13:36:56 23 A Yes.

13:36:56 24 Q Now, if you go to the end of your file there,

13:37:02 25 there is a document there marked DHHS dash several zeros

13:37:06 26 and a one.

13:37:07 27 A Yes.

13:37:07 28 Q Is that a document you've reviewed? That's
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13:37:14 1 the cover page -- is that the cover page for a document

13:37:16 2 that you've reviewed?

13:37:17 3 A I took one look at the document and found out

13:37:25 4 that what this document contains is a Xerox of the 1986

13:37:31 5 IARC monograph which is mentioned and some other material,

13:37:39 6 the U.S. EPA report and the California EPA Report, which I

13:37:45 7 had read in a different context at different times.

13:37:49 8 So this Appendix was nothing new.

13:37:55 9 Q Okay. That clarifies that. Great. Let's

13:37:59 10 move on, if you go back to the email we were just

13:38:03 11 discussing. And two more pages, PX-HW dash several zeros

13:38:16 12 and a five.

13:38:16 13 It looks like there's an email from you to

13:38:20 14 Kim Silva, who I believe is with Mr. McGuire's office,

13:38:25 15 sending them a file that's 44 pages long.

13:38:28 16 Do you recall what that file is?

13:38:30 17 A Yes. This was the WHO document.

13:38:35 18 Q Which WHO document?

13:38:37 19 A What's it called?

13:38:39 20 MR. MCGUIRE: Consultation report.

13:38:41 21 THE WITNESS: Consultation report.

13:38:42 22 BY MR. KODSI:

13:38:42 23 Q Okay. We're going to get to that, because

13:38:45 24 that's referenced in a later letter. All right.

13:38:48 25 Let's go to, flip to a few pages now to PX-HW

13:38:59 26 five zeros and a seven. It is an email from Kim Silva to

13:39:07 27 you on May 12th, 2000. Do you see that?

13:39:14 28 A Yes.

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13:39:14 1 Q At the end of that -- and just, for the

13:39:16 2 record, I'm sure we've got this somewhere. But Kim Silva

13:39:20 3 is an attorney with Mr. McGuire's office, or a paralegal?

13:39:24 4 MR. MCGUIRE: Paralegal.

13:39:25 5 MR. KODSI: All right.

13:39:26 6 BY MR. KODSI:

13:39:26 7 Q The last sentence of that email says, "Thank

13:39:28 8 you again for your help with the chemist."

13:39:31 9 What is that referring to?

13:39:34 10 A I was asked from Mr. McGuire's office whether

13:39:37 11 I knew somebody who would be knowledgeable in the

13:39:40 12 chemistry of environmental tobacco smoke.

13:39:43 13 Q And did you respond to them with some

13:39:46 14 information?

13:39:47 15 A I think I came up with some names, yes.

13:39:51 16 Q Do you remember which names you gave them?

13:39:54 17 A I pointed out that the people who were most

13:40:00 18 knowledgeable really were probably defendants in the

13:40:05 19 tobacco industry. I got the name from a friend of mine

13:40:08 20 from somebody in Utah, whose name I unfortunately have

13:40:12 21 forgotten.

13:40:13 22 Q Would that be Delbert Eatough, maybe?

13:40:15 23 A How would you spell his name?

13:40:17 24 Q Delbert, D-e-l-b-e-r-t, Eatough,

13:40:22 25 E-a-t-o-u-g-h?

13:40:25 26 A That could be it, yes. No, I didn't come up
13:40:35 27 with any real -- many names. Oh. Okay.

13:40:46 28 Q Is there anybody else you can think of?
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13:40:48 1 MR. McGUIRE: All you can think of that you
13:40:50 2 told Kim Silva.

13:40:51 3 MR. KODSI: Good point. Thank you.

13:40:52 4 BY MR. KODSI:

13:40:52 5 Q Are there any other names you can think of?

13:40:55 6 A No. I can't. No.

13:40:55 7 Q Okay. Now, you said there that you thought
13:41:02 8 that most of the people knowledgeable on chemistry would
13:41:08 9 be people with the defendants. What did you mean by
13:41:10 10 that?

13:41:10 11 A I don't think that in academia, there is as
13:41:16 12 much research going on in tobacco, on tobacco smoke.

13:41:24 13 Q So is it your opinion that most of the
13:41:30 14 experts on tobacco chemistry are employed with or consult
13:41:38 15 with the tobacco industry?

13:41:39 16 A I would think so.

13:41:40 17 Q Okay. I think we've talked before, you view,
13:41:46 18 for example, Roger Jenkins as an expert in tobacco
13:41:49 19 chemistry?

13:41:50 20 MR. McGUIRE: Well, I don't think he said
13:41:52 21 that before, about tobacco chemistry.

13:41:54 22 Go ahead.

13:41:55 23 BY MR. KODSI:

13:41:55 24 Q Do you view Roger Jenkins as an expert in
13:41:59 25 tobacco chemistry?

13:41:59 26 A Tobacco smoke chemistry, yes.

13:42:00 27 Q Good point. Good clarification. Okay.

13:42:05 28 Let's flip a few pages more, going to the exhibit, again,
Vail, Christians & Associates (619)544-8344 510

13:42:13 1 contained within Exhibit No. 549, marked -- bear with me.
13:42:34 2 18. PX-HW four zeros and an 18.

13:42:41 3 This is the document I think we were
13:42:54 4 referring to earlier or that Mr. McGuire sent you the
13:42:57 5 international -- and I think there's a typo here. I think
13:43:00 6 it's consultation, not confrontation.

13:43:02 7 A That's not a typo. That's a Freudian slip.

13:43:06 8 Q Oh, okay. But that's a document entitled,
13:43:13 9 "The International confrontation On Tobacco Smoke and
13:43:16 10 Child Health," correct? Correct?

13:43:21 11 A Correct.

13:43:21 12 Q And that was a document that was sent to you
13:43:23 13 by Mr. McGuire?

13:43:24 14 A No. I sent it to Mr. McGuire, and I got it
13:43:27 15 back.

13:43:27 16 Q Okay. When did you first -- I assume -- have
13:43:30 17 you read that document?

13:43:30 18 A Yes.

13:43:31 19 Q When did you first read that document?

13:43:34 20 A About two or three days after the last
13:43:37 21 deposition.

13:43:38 22 Q Okay. Is that a document that you plan on
13:43:42 23 relying -- or that you rely on for any opinions you intend
13:43:46 24 to offer in this case?

13:43:47 25 A Yes.

13:43:47 26 Q And which opinions would those be?

13:43:51 27 A This document shows the health impacts of
13:43:56 28 environmental tobacco smoke in children.
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13:43:59 1 Q And do you have any opinions on the health
13:44:09 2 impacts of environmental tobacco smoke on children other
13:44:12 3 than lung cancer, as we've talked about today?
13:44:16 4 MR. McGUIRE: You haven't established that he
13:44:17 5 has any opinions as to lung cancer in children.
13:44:23 6 MR. KODSI: That's a good clarification.
13:44:25 7 BY MR. KODSI:
13:44:25 8 Q Do you have any opinions regarding the health
13:44:27 9 impact of environmental tobacco smoke and any disease
13:44:31 10 endpoint other than lung cancer?
13:44:33 11 A Yes.
13:44:33 12 Q Now, let me -- earlier today when we talked
13:44:36 13 about your opinions about acute and chronic lung diseases,
13:44:40 14 I understood you to limit that to lung cancer. Was that a
13:44:45 15 misunderstanding?
13:44:48 16 A This was a misunderstanding. Can you go back
13:45:00 17 what your question is.
13:45:01 18 Q Okay. Yeah. Earlier today, we talked about
13:45:03 19 your expert disclosure statement, Exhibit No. -- let's
13:45:13 20 see. I think it's 549 maybe. Let's see. I don't know if
13:45:33 21 you have it there.
13:45:33 22 A I can answer your question.
13:45:35 23 Q Why don't you go ahead and explain it for me.
13:45:37 24 A When we talked this morning about acute and
13:45:39 25 chronic lung disease, we were talking about, a, about
13:45:43 26 adults and when it came to acute lung disease by ETS, and
13:45:48 27 I assume at the time being we were talking about adults, I
13:45:51 28 didn't know whether there was any.
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13:45:52 1 And the chronic lung disease in adults was
13:45:55 2 COPD, which certainly occurs in active smokers. And where
13:46:02 3 I don't think there is much evidence that's associated
13:46:07 4 with ETS exposure.
13:46:09 5 However, when it comes to children, I do
13:46:13 6 think that ETS might precipitate what could be called
13:46:19 7 acute lung disease.
13:46:20 8 Q Okay. When you say might precipitate acute
13:46:29 9 lung disease, what are you talking about there?
13:46:32 10 A I would classify pulmonary infection of the
13:46:35 11 deep lung, that this is associated with ETS exposure as an
13:46:46 12 acute lung disease. I would -- exacerbation of asthma is
13:46:57 13 also associated with ETS exposure, called an acute lung
13:47:02 14 disease. Otitis media, middle ear infection is an acute
13:47:08 15 disease. And SIDS, sudden infant death syndrome, is a
13:47:19 16 very acute event.
13:47:20 17 Q Okay. Are there any other diseases that you
13:47:28 18 believe ETS -- now, I guess let me walk back here.
13:47:31 19 When you talk about ETS might precipitate, is
13:47:34 20 it your opinion that ETS exposure causes pulmonary
13:47:39 21 infections of the deep lung in children?
13:47:42 22 A Yes.
13:47:42 23 Q Is it your opinion that ETS causes
13:47:45 24 exacerbation of asthma in children?
13:47:47 25 A Yes.
13:47:47 26 Q Is it your opinion that ETS causes otitis
13:47:50 27 media in children?
13:47:51 28 A Yes.
Vail, Christians & Associates (619)544-8344 513
13:47:51 1 Q And is it your opinion that ETS causes SIDS
13:47:54 2 in children?
13:47:54 3 A Yes.
13:47:55 4 Q Are there any other diseases that you have an
13:47:58 5 opinion with respect to ETS causing in children?

13:48:02 6 A I could not recall offhand right now.

13:48:05 7 Q Okay. Let's do each of those one at a time.

13:48:16 8 Why don't you walk me through your analysis and how you

13:48:20 9 determined that ETS causes pulmonary infections of the

13:48:24 10 deep lung in children.

13:48:27 11 A I -- I read the Cal EPA document. I

13:48:49 12 certainly read the WHO report. And I really relied also

13:48:52 13 on the opinion of my colleague, Dr. Joad.

13:48:57 14 Q Have you read any of the underlying studies

13:49:01 15 cited in the Cal EPA report on that issue?

13:49:07 16 A No.

13:49:07 17 Q And have you read any of the underlying

13:49:10 18 studies cited in the WHO report on that issue?

13:49:15 19 A What does the WHO report cite?

13:49:25 20 Q I'm asking you. Are you aware of any -- have

13:49:29 21 you read any of the documents that the WHO relied on in

13:49:33 22 reaching their conclusion?

13:49:34 23 MR. McGUIRE: Okay. In order for him to

13:49:36 24 answer that question, since he just asked you what did

13:49:39 25 they cite, would you mind if he looked at the document so

13:49:42 26 he can tell you whether he has read any of those studies

13:49:46 27 or not.

13:49:46 28 MR. KODSI: I think that's fine. Do we have

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13:49:48 1 that already marked?

13:49:49 2 MR. McGUIRE: The last package this morning

13:49:51 3 that had some email in it.

13:49:52 4 MR. KODSI: Actually, let's go off the record

13:49:54 5 for one second, because we --

13:49:56 6 VIDEOGRAPHER: We are off the record. The

13:49:58 7 time is 1:50.

13:50:02 8 (Discussion off the record.)

13:50:08 9 VIDEOGRAPHER: We are back on the record.

13:56:55 10 The time is 1:57.

13:56:58 11 BY MR. KODSI:

13:56:58 12 Q Okay. Dr. Witschi, we were talking about the

13:57:04 13 WHO document that I believe is part of Exhibit 551?

13:57:10 14 A Yes.

13:57:10 15 Q On consultation on ETS in children's health.

13:57:18 16 Have you reviewed any of the underlying studies -- have

13:57:21 17 you read any of the underlying studies cited in that

13:57:24 18 report on pulmonary infection of the deep lung?

13:57:26 19 A What do you mean by studies? The original

13:57:30 20 papers, or the background papers?

13:57:31 21 Q I'm not sure I understand the difference

13:57:33 22 between what a background paper is.

13:57:35 23 A This consultation report is not a referenced

13:57:43 24 paper. It does not give any references. It is the

13:57:49 25 construct from background papers submitted by different

13:57:57 26 contributors, and presumably based on those background

13:58:04 27 papers, the report was constructed.

13:58:07 28 And, also, presumably, the background papers

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13:58:10 1 would contain the references to the original studies.

13:58:13 2 Now, to answer your question, I did not read

13:58:16 3 any of the background papers, and, therefore, I could not

13:58:21 4 tell you whether I've read any of the studies they cited

13:58:25 5 in the background papers.

13:58:26 6 Q Okay. So in explaining for me your analysis

13:58:29 7 in forming your opinion on pulmonary infection of the deep

13:58:33 8 lung and ETS, you told me that you've read the WHO report

13:58:37 9 and you've read the Cal EPA; is that correct?

13:58:42 10 A Correct.

13:58:45 11 Q Are there any other studies you've read that
13:58:48 12 support that opinion?

13:58:51 13 A None that I can think of right now. Oh.
13:58:58 14 Perhaps, but I would have to go back to it. I'm fairly
13:59:02 15 positive the SCOTH, the British study came up with similar
13:59:10 16 conclusions about children's health being adversely
13:59:12 17 affected by environmental tobacco smoke.

13:59:15 18 Q And the SCOTH report is also a review of the
13:59:19 19 literature, correct?

13:59:20 20 A I think it's more than that. It reflects the
13:59:31 21 consensus of a committee of which the various members,
13:59:38 22 each one in his own field, must have been very familiar
13:59:43 23 with the literature.

13:59:47 24 Q The SCOTH report doesn't contain any original
13:59:50 25 data?

13:59:54 26 A No. But it's -- no. The SCOTH report is
13:59:58 27 extensively referenced.

14:00:00 28 Q And, again, you haven't read any of the
Vail, Christians & Associates (619)544-8344 516
14:00:04 1 underlying references in the SCOTH report with respect to
14:00:07 2 pulmonary infection of the deep lung --

14:00:09 3 A No.

14:00:09 4 Q -- in children? No, meaning my statement was
14:00:12 5 correct?

14:00:12 6 A Your statement is correct.

14:00:13 7 Q Okay.

14:00:15 8 MR. McGUIRE: Could I just ask a question,
14:00:16 9 just to -- did you check the references to determine that
14:00:18 10 you hadn't read them?

14:00:21 11 Did you check the references in the SCOTH
14:00:25 12 report --

14:00:25 13 THE WITNESS: Oh. No.

14:00:27 14 MR. McGUIRE: So you don't know really
14:00:29 15 whether you've read them or not; is that right?

14:00:31 16 THE WITNESS: That's right.

14:00:32 17 MR. McGUIRE: So we're here to get correct
14:00:34 18 answers. So if you can't remember and you hadn't read it
14:00:37 19 to determine that, you have to tell Mr. Kodosi that, and he
14:00:41 20 may offer you the opportunity to look now or he may not.

14:00:44 21 So I've said what I have to say. Sorry.

14:00:48 22 MR. KODSI: Normally, I would object, but
14:00:50 23 that clarification is fairly reasonable. We'll just let
14:00:53 24 that lie.

14:00:53 25 BY MR. KODSI:

14:00:53 26 Q But the bottom line is, as we sit here today,
14:00:57 27 you have not -- you cannot recall reading any original
14:01:00 28 data on pulmonary infection of the deep lung in children
Vail, Christians & Associates (619)544-8344 517
14:01:07 1 and ETS?

14:01:08 2 A I do not recall having read such.

14:01:11 3 Q And that would include the fact that you
14:01:15 4 wouldn't -- you've not read any epidemiology studies that
14:01:19 5 address pulmonary infection of the deep lung in children?

14:01:24 6 A Again, I do not recall.

14:01:25 7 Q And you do not recall reading any toxicology
14:01:30 8 studies that address pulmonary infection of the deep lung
14:01:34 9 in children?

14:01:35 10 A What do you mean by toxicology studies?

14:01:43 11 Q Animal inhalation studies.

14:01:45 12 A I don't really get the thrust of your
14:02:14 13 question.

14:02:14 14 Q You have not read any animal inhalation
14:02:18 15 studies that look at pulmonary infection of the deep lung

14:02:23 16 as it would pertain to children?
14:02:29 17 MR. McGUIRE: Well, isn't that a kind of
14:02:32 18 nonsequitor there? Animal studies have to do with
14:02:35 19 children?
14:02:36 20 MR. KODSI: Okay. That's a bad -- let me
14:02:38 21 rephrase it. You've given me an idea how to rephrase
14:02:40 22 that, because I recognize that too.
14:02:42 23 BY MR. KODSI:
14:02:42 24 Q You have not read any animal inhalation
14:02:44 25 studies that you would rely on in support of your opinion
14:02:50 26 that ETS causes pulmonary infection of the deep lung in
14:02:55 27 children?
14:02:55 28 A I did.
Vail, Christians & Associates (619)544-8344 518
14:02:55 1 Q Which ones would those be?
14:02:57 2 A I wouldn't know them offhand, but -- and
14:03:02 3 it's not directly ETS. It's one constituent of ETS,
14:03:10 4 nitrogen oxides. And in the old literature, going back
14:03:15 5 some 20 years, there are some studies which I read in
14:03:19 6 which animals were exposed to No2 and then the effects of
14:03:27 7 No2 were examined in what we called an infectivity model
14:03:33 8 and exposure of No2 and then the animals to bacteria
14:03:38 9 registered more sensitive to pulmonary infection. And No2
14:03:43 10 being, to the best of my knowledge, a constituent of
14:03:47 11 tobacco smoke, this might have some relevance.
14:03:51 12 Q When you say some relevance, does showing
14:03:54 13 that No2 might cause a particular health effect such as
14:03:58 14 pulmonary infection of the deep lung tell you that ETS
14:04:01 15 causes that same health effect?
14:04:04 16 A This would be -- this would lead me to
14:04:12 17 formulate the hypothesis which then could be tested. To
14:04:16 18 the best of my knowledge, ETS has not been tested in an
14:04:20 19 infectivity model.
14:04:22 20 Q What is an infectivity model?
14:04:25 21 A You expose the animals to a toxic inhalant,
14:04:34 22 and then you let it inhale a certain number of bacteria
14:04:40 23 which in a healthy animal would be not enough to produce
14:04:45 24 lung disease, but in a vacant lung may do so.
14:04:51 25 And, as a matter of fact, those studies were
14:04:53 26 exactly done because at the time being, there was some
14:04:57 27 evidence from epidemiologic studies that children who
14:05:05 28 lived in homes where there was gas cooking would be more
Vail, Christians & Associates (619)544-8344 519
14:05:10 1 sensitive to respiratory infections and the presumable
14:05:17 2 mechanism was that No2 would weaken their defense
14:05:28 3 mechanisms.
14:05:29 4 This was eventually tested in a very well
14:05:33 5 designed epidemiologic study in which the people were very
14:05:39 6 careful to identify homes in New Mexico with gas burning
14:05:45 7 stoves and nongas burning stoves.
14:05:48 8 But when the study was done, about six, seven
14:05:52 9 years later, there was no evidence. And the reasons
14:05:56 10 were -- the reason being, and I think might amuse you, was
14:06:00 11 between the original concept of the study and when it was
14:06:03 12 done, microwaves became available. So people don't --
14:06:07 13 didn't use any gas cooking anymore. I don't know whether
14:06:11 14 you're familiar with that study.
14:06:13 15 Q The No2, you bring up a good point when you
14:06:15 16 talk about No2 and gas stoves. No2 is ubiquitous,
14:06:21 17 correct?
14:06:21 18 A Yes.
14:06:21 19 Q You said that No2 is in tobacco smoke, but
14:06:24 20 it's also in the air we all breathe every day, isn't it?

14:06:28 21 A It depends on where you live, yes.
14:06:30 22 Q Where would you live where you wouldn't
14:06:32 23 inhale No2?
14:06:34 24 A The southern Oregon coast.
14:06:38 25 Q I have to ask why would that be?
14:06:41 26 A Because I lived there half of my time, and I
14:06:44 27 know. Because the prevailing winds are just straight from
14:06:47 28 the Pacific.
Vail, Christians & Associates (619)544-8344 520
14:06:48 1 Q But in most urban environments, No2 is in the
14:06:51 2 air we all breathe every day?
14:06:52 3 A Yes.
14:06:52 4 Q Okay. Now, you have never conducted an
14:07:01 5 animal inhalation study to look at whether or not ETS
14:07:04 6 causes pulmonary infection of the deep lung?
14:07:06 7 A No.
14:07:07 8 Q Let's go to -- well, let me ask you this: Is
14:07:15 9 it your opinion -- scratch that. Let me move on.
14:07:26 10 Let's talk about exacerbation of asthma. Why
14:07:32 11 don't you walk me through your analysis in reaching the
14:07:34 12 conclusion that ETS causes exacerbation of asthma.
14:07:38 13 A Two reasons.
14:07:45 14 Q I'm sorry. Let me just clarify. That
14:07:48 15 opinion is limited to children, correct?
14:07:50 16 A Yes.
14:07:50 17 Q Okay. So let me re-ask the question just so
14:07:53 18 the record is clear.
14:07:54 19 Why don't you walk me through your analysis
14:07:56 20 upon which you reached your opinion that ETS causes
14:07:59 21 exacerbation of asthma in children?
14:08:02 22 A Three reasons. The one from, again, reading
14:08:08 23 the documents you already talked about.
14:08:12 24 The second one from having knowledge of the
14:08:19 25 animal experiments which were done by Dr. Pinkerton and
14:08:23 26 Dr. Joad.
14:08:24 27 And the third one by having read what
14:08:28 28 Dr. Joad had to say in her deposition and agreeing with
Vail, Christians & Associates (619)544-8344 521
14:08:37 1 what is there.
14:08:39 2 You tax my English.
14:08:39 3 Q Now, let me first ask when you say that ETS
14:08:51 4 causes exacerbation of asthma in children, I assume then
14:08:58 5 that it is not your opinion that ETS causes asthma in
14:09:00 6 children?
14:09:01 7 A This --
14:09:02 8 MR. McGUIRE: What do you mean? It's not
14:09:04 9 as -- it doesn't cause it?
14:09:06 10 BY MR. KODSI:
14:09:06 11 Q Right. It is not your opinion --
14:09:07 12 MR. McGUIRE: Because there's a difference
14:09:09 13 between not having an opinion and having an opinion that
14:09:11 14 is a negative opinion.
14:09:13 15 MR. KODSI: Okay. Let me clarify.
14:09:15 16 BY MR. KODSI:
14:09:15 17 Q You do not have an opinion whether ETS --
14:09:20 18 whether or not ETS causes asthma in children, correct?
14:09:23 19 A Yes, I do.
14:09:25 20 Q Okay. What is that opinion?
14:09:26 21 A I just recently talked to Michael Lipsett,
14:09:32 22 who is an epidemiologist with OEHA, and I got a very
14:09:39 23 guarded answer. But there seems to be some evidence that
14:09:45 24 actually prenatal exposure to ETS might be a factor in
14:09:53 25 children developing asthma later on.

14:09:56 26 So my opinion could be described as waiting
14:10:04 27 until the results are in, but in the meantime, not
14:10:08 28 excluding such a possibility of prior art.
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14:10:15 1 Q At this time point in time, as we sit here
14:10:18 2 today, you would not be prepared to testify under oath
14:10:21 3 that ETS causes asthma in children?
14:10:22 4 A No. But I would testify that this is
14:10:24 5 something that needs to be looked in, in the appropriately
14:10:29 6 designed studies.
14:10:30 7 Q We just don't know the answer yet?
14:10:36 8 A Yes.
14:10:36 9 Q Yes, my statement is correct?
14:10:38 10 A Yes, your statement is correct.
14:10:39 11 Q Okay. Now, let's go back to exacerbation of
14:10:42 12 asthma. Again, you rely on the same review documents, the
14:10:48 13 Cal EPA report and the WHO report that we talked about
14:10:52 14 earlier --
14:10:53 15 A Yes.
14:10:53 16 Q -- for that opinion? And you mention the
14:10:56 17 animal experiments conducted by Drs. Pinkerton and Joad?
14:11:01 18 A Yes.
14:11:01 19 Q Do you rely on any experiments that you have
14:11:04 20 conducted for that opinion?
14:11:07 21 A I have not done any experiments along those
14:11:10 22 lines.
14:11:11 23 Q Okay. And you indicate that you read the
14:11:14 24 deposition of Dr. Joad and agreed with what she had to say
14:11:18 25 on that issue, correct?
14:11:19 26 A Yes.
14:11:19 27 Q Have you read any of the underlying
14:11:23 28 epidemiology studies that discuss exacerbation of asthma
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14:11:29 1 and ETS?
14:11:30 2 A Again, I would not recall.
14:11:33 3 Q Do you remember Dr. Joad indicating that
14:11:36 4 there were probably a hundred such studies?
14:11:40 5 A Yes.
14:11:41 6 Q And, as we sit here right now, you don't
14:11:44 7 recall whether you've read any of those 100?
14:11:47 8 A I don't -- it's possible that I read some.
14:11:56 9 After all, Dr. Joad and myself and Dr. Pinkerton wrote the
14:12:01 10 review which dealt extensively with this problem. And I
14:12:07 11 really do not recall whether at the time being I looked at
14:12:11 12 some of those papers myself.
14:12:13 13 Q The review paper you're talking about that
14:12:16 14 you just mentioned I think is a paper called the
14:12:18 15 "Toxicology of ETS"?
14:12:19 16 A Yes.
14:12:19 17 Q And that was a paper you and Dr. Joad and
14:12:22 18 Dr. Pinkerton wrote in 1997?
14:12:24 19 A Yes.
14:12:24 20 Q Okay. We may talk about that a little
14:12:27 21 later. Your next opinion, ETS causes otitis media, could
14:12:38 22 you define for the record what otitis -- again, otitis
14:12:41 23 media in children.
14:12:43 24 Could you define for the record what otitis
14:12:45 25 media is?
14:12:46 26 A This is acute inflammation of the middle
14:12:51 27 ear. It's very common in children, and it's very painful.
14:12:57 28 Q And could you walk me through your analysis
Vail, Christians & Associates (619)544-8344 524

14:13:10 1 as to how you concluded that ETS causes otitis media in

14:13:15 2 children.

14:13:16 3 A This is, again, by relying on those three

14:13:22 4 reports we already talked before: the WHO, the Cal EPA,

14:13:28 5 and the SCOTH.

14:13:31 6 Q And have you reviewed any of the underlying

14:13:35 7 animal studies that support the opinion that ETS might

14:13:40 8 cause otitis media in children?

14:13:48 9 A There are no animal studies.

14:13:50 10 Q You're not aware of any animal studies that

14:13:53 11 look at that issue, correct?

14:13:54 12 A No.

14:13:54 13 Q Have you read any of the underlying

14:13:56 14 epidemiology studies regarding ETS and otitis media in

14:14:01 15 children?

14:14:01 16 A Not that I recall.

14:14:02 17 Q So, as we sit here today, your opinion is

14:14:06 18 based on your review of review papers that look at those

14:14:12 19 studies?

14:14:12 20 A Yes.

14:14:12 21 Q And you haven't conducted any experiments

14:14:15 22 that look at otitis media in children? You haven't

14:14:19 23 conducted any studies that look at the issue of otitis

14:14:22 24 media and ETS?

14:14:25 25 A No.

14:14:26 26 Q No, meaning my statement is correct?

14:14:28 27 A Yes.

14:14:28 28 Q Let's go on to SIDS. Why don't you explain
Vail, Christians & Associates (619)544-8344 525

14:14:40 1 for me your analysis in concluding that ETS causes SIDS.

14:14:44 2 A Again, the same reports. The same evidence

14:14:53 3 as discussed and summarized in those three reports.

14:14:57 4 Q Okay. And, again, then you haven't read any

14:15:04 5 animal studies that look at the issue of ETS and SIDS?

14:15:12 6 A There are no animal studies which looked at

14:15:16 7 SIDS, period.

14:15:16 8 Q So it's your opinion that there are no animal

14:15:19 9 studies that have looked at the issue as to whether ETS

14:15:23 10 might cause SIDS?

14:15:26 11 A I'm not aware that what we describe as SIDS

14:15:37 12 can or has been or particularly can be studied in any

14:15:44 13 animal.

14:15:45 14 Q What about epidemiology studies regarding ETS

14:15:51 15 and SIDS, have you read any of those?

14:15:55 16 A Again, I don't recall. This is, again, one

14:15:57 17 of those things that at one time might have caught my

14:16:03 18 attention in beginning in 1991, '92. And might have at

14:16:09 19 first looked at something that would be checked out and

14:16:15 20 then might have gone to the library and checked some of

14:16:18 21 them. But I do not recall.

14:16:21 22 Q Okay. Let me back up, because when we've

14:16:25 23 talked about epidemiology studies for these different

14:16:28 24 diseases, my understanding is that you may have read some,

14:16:31 25 but as we sit here today, you can't recall.

14:16:34 26 So I'd like to ask you would you -- in your

14:16:37 27 opinion, would you know how to formulate an epidemiologic

14:16:44 28 study to look at ETS and pulmonary infection of the deep
Vail, Christians & Associates (619)544-8344 526

14:16:50 1 lung in children?

14:16:54 2 A I would know how to design one, but it would

14:16:57 3 be highly unethical.

14:16:59 4 Q Okay. I think I understand where you're

14:17:03 5 going there, but maybe I better let you go ahead and

14:17:06 6 explain that.

14:17:06 7 MR. McGUIRE: Are we going to be sacrificing
14:17:09 8 children here?
14:17:09 9 BY MR. KODSI:
14:17:09 10 Q Yeah. Is that what you're talking about?
14:17:12 11 We don't need any further explanation.
14:17:14 12 That's what I thought you were talking about.
14:17:16 13 A We would have to design, in my mind, a
14:17:19 14 prospective study. And to do this would be unethical.
14:17:22 15 Q Well, since there have been no such -- I
14:17:25 16 assume we know there have been no such studies. How have
14:17:29 17 the epidemiologists looked at the issue of ETS and
14:17:33 18 pulmonary infection of the deep lung in children?
14:17:35 19 A Presumably, with case control studies.
14:17:38 20 Q And would you know how to design such a case
14:17:42 21 control study?
14:17:43 22 A In principle, yes.
14:17:44 23 Q Why don't you describe for me how you would
14:17:49 24 design it.
14:17:50 25 MR. McGUIRE: In principle?
14:17:51 26 BY MR. KODSI:
14:17:51 27 Q In principle.
14:17:53 28 A You go to a children's hospital or to a
Vail, Christians & Associates (619)544-8344 527
14:17:59 1 pediatrician's office and you ask to see the charts of all
14:18:05 2 the kids that came in with deep pulmonary infections. And
14:18:11 3 you would select a preferably larger group of kids who
14:18:20 4 come to the same office with something else but
14:18:24 5 pulmonary -- deep pulmonary infection. And but matched as
14:18:29 6 closely as possible to the ones with pulmonary infection
14:18:32 7 with regard to age, with regard to socioeconomic
14:18:35 8 background, with regard to nutritional status, with regard
14:18:38 9 maybe to living conditions, and so on.
14:18:40 10 And then you would ask the parents of those
14:18:47 11 two groups of kids whether they smoke or not. And then
14:18:54 12 you simply would see whether there are more households
14:18:59 13 with smoking parents in where kids can receive pulmonary
14:19:06 14 infections than in households with smoking parents in the
14:19:10 15 control group.
14:19:11 16 Q And some of the factors you were just talking
14:19:13 17 about you want to look for, those would be confounding
14:19:16 18 factors in such studies?
14:19:18 19 A These are possible confounders, yes.
14:19:21 20 Q And, as we sit here today, you don't recall
14:19:25 21 reading any studies that use that approach --
14:19:28 22 A No.
14:19:28 23 Q -- that you just described?
14:19:29 24 A You -- where were you? Your statement is
14:19:37 25 correct.
14:19:37 26 Q You beat me to my next question. Okay.
14:19:50 27 Now, I think we were talking -- we had just
14:19:53 28 finished talking about those diseases, and you had
Vail, Christians & Associates (619)544-8344 528
14:19:58 1 mentioned a 1997 paper that you had written with Drs. Joad
14:20:11 2 and Pinkerton entitled, "The toxicology of Environmental
14:20:16 3 Tobacco Smoke."
14:20:16 4 Do you recall that?
14:20:18 5 A Yes.
14:20:18 6 Q I think we actually discussed that paper
14:20:22 7 during day one of your deposition. Do you recall that?
14:20:26 8 A Yes.
14:20:26 9 Q And it was marked as Exhibit 407 to that
14:20:33 10 deposition. I brought a copy with me that has a sticker
14:20:36 11 on it. I assume that we don't have the original here. So

14:20:39 12 I don't know that we need to remark it. We can just refer
14:20:42 13 to it as the same exhibit number if that's acceptable.
14:20:46 14 I've got one for you, Mr. McGuire.
14:20:49 15 MR. McGUIRE: Thanks.
14:20:50 16 MR. KODSI: And I have an extra, Pat.
14:20:52 17 This is Exhibit 407 from the first day of
14:21:06 18 this deposition.
14:21:06 19 BY MR. KODSI:
14:21:06 20 Q Now, what I'd ask you -- first of all, we've
14:21:09 21 talked a lot, I think a fair amount about this paper, back
14:21:12 22 on April 10th. So I don't want to revisit any of that.
14:21:15 23 But just, for the record, this is a paper
14:21:17 24 that you wrote with Drs. Pinkerton and Joad in 1997 in
14:21:21 25 which you discussed various disease end points and
14:21:24 26 environmental tobacco smoke, correct?
14:21:26 27 A Correct.
14:21:26 28 Q And if you would turn to page 32 of that
Vail, Christians & Associates (619)544-8344 529
14:21:43 1 paper. In the first paragraph, under the heading
14:21:51 2 "general," you have a sentence seven lines down where you
14:21:57 3 make the statement, "On the other hand, for noncancer
14:22:01 4 effects such as reduction in birth weight or enhanced
14:22:06 5 development of cardiovascular disease, exposure thresholds
14:22:10 6 may exist."
14:22:10 7 A Yes.
14:22:13 8 Q What did you mean there?
14:22:15 9 Let me switch copies with you because that
14:22:15 10 has my notes. Thanks.
14:22:15 11 A One of the major and still ongoing
14:22:33 12 controversies in toxicology is the question of threshold.
14:22:39 13 In other words, can there be exposure to demonstrably
14:22:49 14 toxic chemicals which is not going to do you any harm.
14:22:53 15 This would be a threshold effect.
14:22:56 16 Most people would tell you that thresholds do
14:23:07 17 exist for agents which do not damage the geno, which are
14:23:14 18 not genotoxic. On the other hand, for what is being
14:23:20 19 called genotoxic carcinogens, there seems to exist no
14:23:25 20 threshold. In other words, that even exposure to small
14:23:31 21 amounts carries a certain risk of the disease going to
14:23:38 22 develop.
14:23:40 23 Q But just so I understand, for the four
14:23:47 24 diseases we were just talking about, pulmonary infection
14:23:51 25 of the lung, exacerbation of asthma, otitis media, and
14:23:54 26 SIDS, you believe that there might be a threshold with
14:23:56 27 respect to ETS?
14:23:58 28 A I would think so.
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14:24:00 1 Q Because those are noncancerous end points?
14:24:04 2 A Yes.
14:24:04 3 Q And of those four diseases we just discussed,
14:24:10 4 my understanding is the only one for which you're aware of
14:24:14 5 animal inhalation data is the exacerbation of asthma which
14:24:19 6 Drs. Joad and Pinkerton have studied?
14:24:24 7 A The experiments they have done provide
14:24:28 8 explanations for this clinical phenomenon. The animals do
14:24:34 9 not get asthma. They do not get the signs and symptoms of
14:24:45 10 people -- as a matter of fact, animals never got
14:24:47 11 symptoms.
14:24:48 12 But the animal models which had been
14:24:54 13 developed, they mimic to a certain degree what's going on
14:24:59 14 in asthmatics.
14:25:01 15 Q And the doses used in those studies were
14:25:06 16 based on particulate matter at a concentration of

14:25:10 17 1 milligram per cubic meter, total suspended particulates,
14:25:16 18 correct?
14:25:16 19 A Yes.
14:25:16 20 Q And that was the lowest dose ever used by
14:25:19 21 Drs. Joad and Pinkerton in their animal studies, correct?
14:25:23 22 A No.
14:25:23 23 Q What other doses have they used?
14:25:26 24 A In some of his experiments, not necessarily
14:25:32 25 directly with associated with airway twitching, but in
14:25:38 26 some of his morphologic analyses, he went down to .1
14:25:45 27 milligrams per cubic meter.
14:25:47 28 Q He, meaning Dr. Pinkerton?
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14:25:49 1 A Dr. Pinkerton, yes.
14:25:50 2 Q And did he find any effects at the level of
14:25:53 3 .1 milligram per cubic meter?
14:25:56 4 A To the best of my recollection, he found some
14:25:58 5 at .3.
14:25:59 6 Q And those effects, I believe you discuss on
14:26:03 7 page 34 in Table 2 of your 1997 paper?
14:26:21 8 A Yes.
14:26:21 9 Q All right.
14:26:22 10 A Also, Dr. Pinkerton has some newer data which
14:26:29 11 he might have mentioned in his deposition.
14:26:31 12 Q Newer data showing what?
14:26:34 13 A I don't recall correctly, but he gave a
14:26:40 14 presentation last Tuesday, and one of the -- if I recall
14:26:47 15 correctly, it was increased number of neuroendocrine
14:26:51 16 cells.
14:26:52 17 Q Right. And as Dr. Pinkerton explained in his
14:26:57 18 deposition -- oh. -- increased number of neuroendocrine
14:27:05 19 cells do not necessarily lead to any adverse health
14:27:08 20 effects.
14:27:09 21 Do you agree with that?
14:27:12 22 A This would be a qualified yes.
14:27:17 23 Q Qualified in what way?
14:27:19 24 A We don't know. The association between
14:27:25 25 neuroendocrines and hyperplasia and children with
14:27:33 26 respiratory disease is, again, something that has come up
14:27:41 27 in clinical studies in the last 5 or 10 years and just
14:27:48 28 begs for experimentation.
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14:27:50 1 Q It's something that needs to be studied
14:27:52 2 further?
14:27:52 3 A Yes.
14:27:52 4 Q Okay. Now, we started this conversation by
14:27:55 5 talking about the concept of a threshold, and as you
14:28:00 6 understand it, if there is a threshold for ETS exposure
14:28:03 7 and a disease, that means there is an exposure below which
14:28:07 8 ETS will not cause that disease, correct?
14:28:10 9 A Correct. But we cannot necessarily assume
14:28:17 10 that this threshold is the same for everybody.
14:28:23 11 MR. McGUIRE: Could I just ask for a
14:28:25 12 clarification.
14:28:25 13 Is the threshold that the two of you were
14:28:28 14 talking about at that moment in time, or is this
14:28:32 15 cumulative?
14:28:33 16 BY MR. KODSI:
14:28:33 17 Q Would your answer be different if we were
14:28:36 18 talking about a particular moment in time, or cumulative?
14:28:41 19 A It would not be different.
14:28:43 20 Q Okay. Now, you just mentioned while looking
14:28:47 21 at this table on page 34 that at least when Dr. Pinkerton

14:28:55 22 and others have looked at a concentration of .1 milligrams
14:29:02 23 per cubic meter total suspended particulates, there were
14:29:08 24 no observable effects in respirator tract tissues?
14:29:12 25 A That's what his then observations said,
14:29:19 26 indicated.
14:29:20 27 Q And, in fact, on page 35 of the paper, again,
14:29:28 28 Exhibit 407, you describe the level of one milligram per
Vail, Christians & Associates (619)544-8344 533
14:29:40 1 cubic meter as being a no observed effect level for the
14:29:44 2 rat.
14:29:44 3 Do you see at the bottom of the page there?
14:29:44 4 A That's what it says.
14:30:04 5 Q Right. And, again, you would agree with me
14:30:10 6 that both .1 milligrams per cubic meter and one milligram
14:30:18 7 per cubic meter particulates are higher than the ETS
14:30:25 8 exposures typically associated with human exposure to ETS?
14:30:31 9 A I would disagree.
14:30:31 10 Q Okay. Well, let me show you to the bottom of
14:30:35 11 page 32 of your paper. It's the last sentence. It starts
14:30:41 12 with the clause where you say, "Personal exposure of
14:30:44 13 nonsmokers to particulate matter associated with ETS has
14:30:49 14 been estimated to range from 18 to 64 micrograms per cubic
14:30:54 15 meter."
14:30:55 16 Do you still agree with that statement?
14:30:58 17 A That's what the two papers say.
14:31:00 18 Q What two papers?
14:31:02 19 A The ones that are referenced.
14:31:04 20 Q Okay.
14:31:05 21 MR. McGUIRE: 5 and 41.
14:31:09 22 BY MR. KODSI:
14:31:09 23 Q Do you have any reason to believe that that
14:31:11 24 statement is now inaccurate?
14:31:13 25 A I already had reasons to believe that one
14:31:31 26 then. I already had some reasons to believe this at the
14:31:33 27 time being.
14:31:33 28 Q At the time, you had reasons to believe that
Vail, Christians & Associates (619)544-8344 534
14:31:35 1 it was inaccurate?
14:31:36 2 A That this statement would not reflect several
14:31:45 3 possibilities I could think of.
14:31:48 4 Q Give me some examples.
14:31:50 5 A Mothers who smoke when they're nursing their
14:31:54 6 children, the micro environment. It must be huge
14:32:00 7 exposures.
14:32:01 8 Q Have you seen studies that attempt to measure
14:32:03 9 that?
14:32:03 10 A No.
14:32:04 11 Q And you've never attempted to measure that,
14:32:06 12 correct? It's not something you've done?
14:32:09 13 A No.
14:32:09 14 Q Okay. So as far as stating that you think
14:32:13 15 that exposure would be huge, is that just a guess on your
14:32:17 16 part?
14:32:17 17 A No.
14:32:18 18 Q So what's your basis for that opinion?
14:32:22 19 A With one milligram per cubic meter, you look
14:32:28 20 into the chamber, you don't see any smoke. When you watch
14:32:33 21 somebody who smokes, you see quite a lot of smoke in his
14:32:38 22 or her immediate surrounding.
14:32:41 23 Q Is it your understanding -- have you read any
14:32:45 24 studies that try to measure the amount of smoke in a
14:32:51 25 smoker's immediate surrounding?
14:32:57 26 A I think the Jenkins study tried to do this.

14:33:04 27 Q When you say the Jenkins study, you're
14:33:07 28 referring to the 16-city study that Dr. Roger Jenkins
Vail, Christians & Associates (619)544-8344 535
14:33:11 1 conducted?
14:33:12 2 A Yes.
14:33:12 3 Q So it's your understanding that he looked at
14:33:15 4 that issue?
14:33:18 5 A As far as I recall having read this study,
14:33:25 6 the people were outfitted with personal sompers. Now, to
14:33:36 7 what extent this would define immediate person
14:33:39 8 surrounding, I have in mind, I don't know. This again
14:33:42 9 would depend if the sompers was right in front, here, or
14:33:45 10 here, or in the back.
14:33:47 11 Q Now, when the animal studies use a
14:33:51 12 concentration of one milligram per cubic meter, that's a
14:33:55 13 steady concentration over a six-hour period? Seven-hour
14:33:59 14 period? What time period?
14:34:00 15 A Six hours.
14:34:01 16 Q So it's a steady concentration of one
14:34:04 17 milligram per cubic meter of total suspended particulates
14:34:09 18 over a six-hour period?
14:34:11 19 A Yes.
14:34:12 20 Q In the example that you're giving me about a
14:34:19 21 mother smoking while nursing her infant, do you have an
14:34:23 22 opinion as to what time period we're talking about
14:34:25 23 there?
14:34:26 24 MR. McGUIRE: Are you talking about how long
14:34:28 25 it takes for her to have one cigarette, or how many months
14:34:34 26 she -- the cumulative exposure?
14:34:36 27 BY MR. KODSI:
14:34:36 28 Q Why don't we talk about how long the exposure
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14:34:38 1 is taking place there for that instant, in your opinion.
14:34:42 2 A I would not know. But one thing I am
14:34:45 3 certain, in the case of the smoking mother, the dose rate
14:34:53 4 would be considerably higher than it would be at one
14:34:56 5 milligram per cubic meter under steady states.
14:35:00 6 Q I'm not sure I understand what you're saying
14:35:03 7 there. What do you mean by the dose rate would be
14:35:05 8 considerably higher?
14:35:07 9 A The dose rate is the amount of toxic agent
14:35:11 10 delivered to its target within a given amount of time.
14:35:15 11 If you think about, for example, radiology,
14:35:23 12 and you give a small dose over a prolonged period of time,
14:35:29 13 you get a different effect if you give the same total dose
14:35:35 14 over a short period of time.
14:35:37 15 Well, let's go to another one. If you drink
14:35:45 16 half a glass of beer every hour and you do this for ten
14:35:54 17 hours, you have five glasses of beer, you do not get the
14:35:59 18 same effect as if you gulped down five glasses of beer
14:36:03 19 within ten minutes.
14:36:05 20 Q You've never seen me drink.
14:36:08 21 MR. McGUIRE: We're not inviting that
14:36:10 22 either.
14:36:10 23 THE WITNESS: I'm talking about the effect.
14:36:12 24 That is what is meant by dose rate.
14:36:14 25 BY MR. KODSI:
14:36:14 26 Q I understand the point you're trying to make
14:36:16 27 there.
14:36:17 28 Now, the one point, though, when you said
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14:36:20 1 that you were convinced that the dose rate would be higher
14:36:22 2 than one milligram per cubic meter, do you have any

14:36:25 3 evidence that supports that actual level?

14:36:32 4 A No.

14:36:33 5 Q It's a hypothesis on your part?

14:36:35 6 A Yes.

14:36:35 7 MR. KODSI: Actually, now would be a real

14:37:14 8 good time for me to take about five -- I know we just took

14:37:17 9 one. But I might be able to tie some things up. I want

14:37:21 10 to give Mr. Cafferty an ample opportunity. So if we can

14:37:27 11 take five minutes.

14:37:28 12 MR. McGUIRE: Okay.

14:37:28 13 VIDEOGRAPHER: We are off the record. The

14:37:33 14 time is 2:37.

14:37:34 15 (Recess.)

14:37:41 16 VIDEOGRAPHER: We are back on the record.

14:56:49 17 The time is 2:56.

14:56:52 18 MR. KODSI: Okay. Dr. Witschi, understanding

14:56:55 19 that there are other people in the room that want to have

14:56:57 20 the opportunity to ask you some questions, I'm going to go

14:57:00 21 ahead and pass the baton, so to speak, over to

14:57:03 22 Mr. Cafferty, who might ask you a few questions.

14:57:06 23 I'm going to during that time sift through my

14:57:08 24 notes. And I really -- I don't think I have any more

14:57:09 25 questions for you. And if I do, I'll represent to you it

14:57:12 26 will be very short if I ask any more at the end of the

14:57:15 27 day.

14:57:15 28 But I wanted to thank you for your time.

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14:57:18 1 THE WITNESS: Thank you.

14:57:21 2

14:57:21 3 EXAMINATION

14:57:21 4 BY MR. CAFFERTY:

14:57:21 5 Q Dr. Witschi, I'm Pat Cafferty. I represent

14:57:25 6 Philip Morris, as you know.

14:57:27 7 And what I want to do now is I want to follow

14:57:29 8 up on some of the things that Mr. Kodosi was asking you

14:57:32 9 about, and then I want to ask you about some of the

14:57:35 10 documents that Mr. McGuire had provided to me earlier this

14:57:38 11 week and that we've marked as deposition exhibits today.

14:57:42 12 So with that in mind, what I'd like to first

14:57:45 13 ask you is are you a medical doctor?

14:57:47 14 A Yes.

14:57:47 15 Q What kind of medical practice do you

14:57:49 16 currently have?

14:57:52 17 A I do not have any medical practice.

14:57:54 18 Q Okay. Have you ever had a medical practice?

14:58:00 19 A The first four years after my final exam, I

14:58:08 20 was a forensic pathologist. Now, you might want to call

14:58:12 21 this a practice, "yes" or "no."

14:58:14 22 Q That's practicing on dead people, right? I

14:58:17 23 was thinking about practicing on people who are alive.

14:58:19 24 Did you ever have a medical practice --

14:58:21 25 A No. I only treated patients while I was a

14:58:24 26 medical student.

14:58:25 27 Q Okay. And when were you last a pathologist?

14:58:29 28 A This also was during when I was doing my

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14:58:34 1 forensic pathology.

14:58:35 2 Q How long ago was that?

14:58:36 3 A This was from 1960 to 1964, end of 1964.

14:58:42 4 Q So it would be fair to say that you've never

14:58:44 5 practiced as a pediatrician, for example?

14:58:46 6 A No.

14:58:46 7 Q Okay. Have you ever treated any children who

14:58:49 8 have had any childhood diseases?
14:58:51 9 A No.
14:58:52 10 Q Have you ever treated anyone that has had
14:58:55 11 asthma?
14:58:56 12 A When I was a medical student, I might have.
14:58:59 13 I don't recall. Because as a medical student, we had to
14:59:01 14 spend several weeks or months in working in one of the
14:59:07 15 clinics and making house calls. But this was about 1958,
14:59:11 16 1959 in my home town of -- in Switzerland.
14:59:17 17 Q Okay. Now, Mr. Kodsí asked you some
14:59:21 18 questions about your opinions regarding childhood
14:59:23 19 illnesses. And I believe that your testimony was that
14:59:26 20 you've read the opinions that Dr. Joad has expressed in
14:59:30 21 her deposition; is that correct?
14:59:31 22 A That's correct.
14:59:33 23 Q Are your opinions regarding childhood
14:59:35 24 diseases any different than the opinions that Dr. Joad
14:59:40 25 offered in her deposition?
14:59:41 26 A I did not see anything I would have to
14:59:44 27 disagree with.
14:59:45 28 Q Okay. Are there any opinions that you hold
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14:59:47 1 that Dr. Joad does not hold?
14:59:50 2 A I would not know.
14:59:51 3 Q Are there any opinions that you intend to
14:59:54 4 testify about in this case that you did not see Dr. Joad
15:00:00 5 testifying about in her deposition?
15:00:03 6 A No.
15:00:03 7 Q And I believe you also reviewed
15:00:06 8 Dr. Pinkerton's deposition; is that correct?
15:00:08 9 A Yes.
15:00:09 10 Q Okay. Are there -- is there any difference
15:00:14 11 between your opinions on the association between ETS and
15:00:18 12 childhood diseases and Dr. Pinkerton's opinions regarding
15:00:22 13 the association between ETS exposure and childhood
15:00:27 14 diseases?
15:00:28 15 A There are no differences. Again, I would
15:00:31 16 have to refer to him.
15:00:34 17 Q Okay. Do you have any additional opinions
15:00:38 18 regarding the relationship between ETS exposure and
15:00:42 19 childhood illnesses, other than those that were expressed
15:00:46 20 by Dr. Pinkerton?
15:00:48 21 MR. McGUIRE: Overbroad, and it's very unfair
15:00:52 22 to have him compare something that's not in front of him,
15:00:56 23 the opinions expressed by Dr. Pinkerton about childhood
15:00:59 24 diseases.
15:01:00 25 But you can answer if you -- to the extent
15:01:02 26 you can recollect.
15:01:03 27 THE WITNESS: I can't really recollect. And
15:01:05 28 I would have to ask you to be more specific what exactly
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15:01:08 1 you had in mind, Dr. Pinkerton said.
15:01:12 2 BY MR. CAFFERTY:
15:01:12 3 Q All right. As you sit here today, can you
15:01:14 4 think of any opinions regarding ETS and childhood disease
15:01:20 5 that were not expressed by Dr. Pinkerton in his
15:01:24 6 deposition?
15:01:27 7 MR. McGUIRE: That he holds?
15:01:28 8 MR. CAFFERTY: Yes.
15:01:29 9 MR. McGUIRE: Okay.
15:01:30 10 THE WITNESS: I really couldn't answer that
15:01:32 11 question.
15:01:32 12 MR. McGUIRE: Okay. He said, as you sit here

15:01:34 13 today.

15:01:34 14 THE WITNESS: Yes.

15:01:35 15 MR. McGUIRE: So that's a fair question.

15:01:38 16 THE WITNESS: No, I can't answer the question.

15:01:39 17 BY MR. CAFFERTY:

15:01:39 18 Q Now, we talked a little bit about

15:01:41 19 epidemiology studies, and one of the terms you used was

15:01:46 20 case control study. Do you recall using that term?

15:01:49 21 A Yes.

15:01:49 22 Q What is a case control study?

15:01:52 23 A This is -- I explained this previously. The

15:02:00 24 example is how would you find out whether ETS is

15:02:03 25 associated with lower respiratory infection. You collect

15:02:09 26 cases. I mean, you collect stories, charts, or the

15:02:17 27 histories of people with a given disease. Let's say lung

15:02:21 28 cancer.

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15:02:21 1 Then you collect the charts of usually two to

15:02:28 2 three times the number of people who match your patients

15:02:33 3 as closely as possible in regard to sex, in regard to age,

15:02:38 4 in regard to occupation, in regard to socioeconomic

15:02:43 5 background.

15:02:43 6 And then you ask them in the case of lung

15:02:50 7 cancer, you ask your people with lung cancer how much they

15:02:56 8 smoked. And you ask your other people how much they

15:02:59 9 smoked. And if in both groups the percentage of smokers

15:03:03 10 was about the same, then you would not find an association

15:03:05 11 between lung cancer and smoking.

15:03:07 12 However, if in your cases, most, probably

15:03:12 13 something like 90 percent of people had lung cancer were

15:03:16 14 smokers or ex-smokers and in your controls, only maybe

15:03:21 15 about -- nobody had smoked or maybe about 10, 20 percent,

15:03:27 16 then this would suggest that the lung cancer in your cases

15:03:34 17 are strongly associated with smoking. That's a case

15:03:37 18 control study.

15:03:38 19 Q Okay. Would it be fair to say that a case

15:03:42 20 control study is a retrospective study, one that looks

15:03:46 21 backwards in time?

15:03:47 22 A Yeah, I think that is what they are called

15:03:49 23 sometimes.

15:03:49 24 Q And I understand that you used the term

15:03:51 25 prospective in talking about an epidemiology study as

15:03:55 26 well. Did I hear you correctly on that?

15:03:57 27 A That is correct.

15:03:58 28 Q And what did you mean by a prospective study?

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15:04:01 1 A In a prospective study, you, again, select

15:04:03 2 two groups of people which differ in regard of what you

15:04:09 3 suspect is the causative agent in a particular disease.

15:04:16 4 Again, in the case of lung cancer and

15:04:20 5 smoking, you would select a large number of people who

15:04:23 6 smoke. And you would select an equally large number of

15:04:28 7 people who do not smoke. You would identify them. You

15:04:32 8 would take their histories, whatever you can, and then you

15:04:35 9 sit back and wait for about, in the case of lung cancers,

15:04:40 10 20, 30, 40 years.

15:04:42 11 And as this cohort moves along, you collect

15:04:55 12 information on what they died from. And if in your

15:05:00 13 smokers group most of the people die from lung cancer or

15:05:04 14 some other smoking-related disease, then you would have

15:05:07 15 come to the conclusion that smoking is associated with

15:05:14 16 this particular disease. Some might say even causely

15:05:18 17 related to.

15:05:20 18 Q Okay.

15:05:21 19 A History of lung cancer in smoking, what

15:05:24 20 really convinced most people, was the prospective study

15:05:28 21 which was done by Doll and Hill on the British

15:05:33 22 physicians.

15:05:33 23 Q Are you familiar with the term cohort study?

15:05:38 24 A That's what I just described, I think.

15:05:40 25 Q So a cohort study would be a prospective

15:05:44 26 study?

15:05:44 27 A I think in many instances, it would be. It

15:05:51 28 could be, and, really, that's where I -- my detailed
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15:05:57 1 knowledge of epidemiological techniques, I could think of

15:06:02 2 cohorts as being retrospective. I don't know.

15:06:05 3 Q Okay. Have you ever done a comprehensive

15:06:10 4 review of the epidemiology literature regarding the

15:06:15 5 association between ETS and SIDS?

15:06:21 6 A What would you mean by review? Written

15:06:25 7 review, or read papers?

15:06:28 8 Q Read papers, read all of the --

15:06:30 9 A No.

15:06:31 10 Q -- papers regarding -- epidemiology papers,

15:06:34 11 regarding SIDS and the association with ETS.

15:06:39 12 A No.

15:06:40 13 Q Do you know how many of -- how many such

15:06:42 14 studies have been done?

15:06:46 15 MR. McGUIRE: I'm sorry. Just for

15:06:48 16 clarification, how many comprehensive reviews have been

15:06:51 17 done, or how many studies regarding SIDS and ETS?

15:06:54 18 MR. CAFFERTY: That's a good point. Thank

15:06:56 19 you, Mr. McGuire.

15:06:57 20 BY MR. CAFFERTY:

15:06:57 21 Q Do you know how many studies regarding the

15:06:59 22 association between SIDS and ETS have been done?

15:07:01 23 A I do not recall. I know from reading some of

15:07:05 24 these reports, they quote them.

15:07:08 25 Q Do you know --

15:07:08 26 A But I do not -- I do not recall the number.

15:07:11 27 Q Do you know how many of the SIDS and ETS

15:07:15 28 epidemiology studies have been cohort studies?
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15:07:19 1 A I don't know.

15:07:20 2 Q Do you know how many have been case control

15:07:23 3 studies?

15:07:24 4 A I don't know.

15:07:25 5 Q Have you ever done a comprehensive review of

15:07:27 6 the epidemiology studies regarding the association between

15:07:34 7 otitis media and ETS?

15:07:37 8 A No.

15:07:37 9 Q Do you know how many of the epidemiology

15:07:41 10 studies regarding the association between otitis media and

15:07:47 11 ETS there are?

15:07:48 12 A No.

15:07:50 13 Q Do you know how many of the epidemiology

15:07:53 14 studies regarding otitis media and ETS exposure are case

15:07:59 15 control studies?

15:08:00 16 A No.

15:08:01 17 Q Do you know how many are cohort studies?

15:08:03 18 A No.

15:08:04 19 Q Have you ever done a comprehensive review of

15:08:09 20 the literature regarding -- the epidemiology literature

15:08:12 21 regarding the association between exacerbation of asthma

15:08:17 22 and ETS exposure?

15:08:20 23 A I might have read some way back a few
15:08:24 24 papers, but I could not call this in good conscience,
15:08:28 25 having done a comprehensive review.

15:08:31 26 Q Do you know how many studies, epidemiology
15:08:33 27 studies there are regarding the association between
15:08:36 28 exacerbation of asthma and ETS exposure?

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15:08:43 1 A At the time we wrote this review, there must
15:08:47 2 have been about, as I recall, one to two dozen.

15:08:49 3 Q How many of those studies were case control
15:08:53 4 studies?

15:08:54 5 A I don't know.

15:08:54 6 Q How many were cohort studies?

15:08:56 7 A I don't know.

15:08:58 8 Q Have you ever done a comprehensive review of
15:09:01 9 the epidemiology literature regarding the association
15:09:04 10 between pulmonary infection of the deep lung and ETS
15:09:08 11 exposure?

15:09:09 12 A No.

15:09:12 13 Q Do you know how many epidemiology studies
15:09:15 14 there are regarding the association between pulmonary
15:09:18 15 infection of the deep lung and ETS exposure?

15:09:22 16 A No.

15:09:22 17 Q How many of those studies are case control
15:09:24 18 studies?

15:09:25 19 A I don't know.

15:09:25 20 Q How many are cohort studies?

15:09:27 21 A I don't know.

15:09:28 22 Q Have you ever done a comprehensive analysis
15:09:31 23 of the epidemiology literature regarding the association
15:09:35 24 between lung cancer and ETS exposure?

15:09:42 25 A I read some of the studies, but, again, I did
15:09:45 26 not read all the -- all the close to 40 studies which are
15:09:55 27 out now.

15:09:56 28 Q And that was going to be my next question.

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15:09:58 1 How many studies are there?

15:09:59 2 A There are, I think now about 40 to 50.

15:10:03 3 Q How many of those studies are case control
15:10:06 4 studies?

15:10:07 5 A I don't know the exact number.

15:10:14 6 Q How many are cohort studies?

15:10:15 7 A I don't know.

15:10:19 8 Q Are you familiar with the term rule of thumb?

15:10:23 9 A Yes.

15:10:23 10 Q What does that mean to you?

15:10:26 11 A It's a educated guess.

15:10:40 12 Q And educated guess is what rule of thumb
15:10:44 13 means to you?

15:10:46 14 A No, that's not a real -- I couldn't give you
15:10:51 15 a definition.

15:10:51 16 Q How about if we use the definition general
15:10:55 17 rule of application. Do you understand that?

15:10:56 18 A That has not quite the same connotation as
15:11:04 19 rule of thumb, I think. But, there, I might have a
15:11:08 20 language program.

15:11:09 21 Q Okay. Let's use rule of thumb.

15:11:11 22 A Yes.

15:11:11 23 Q We'll try that. Are you aware of any rules
15:11:16 24 of thumb regarding when an odds ratio is considered to be
15:11:20 25 meaningful in a case control study?

15:11:22 26 A Yes.

15:11:22 27 Q What kind of rules of thumb are there for

15:11:25 28 that?

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15:11:26 1 A Usually, if the odds ratio is two and more,
15:11:33 2 then there is something there. That's what I think is a
15:11:43 3 rule of thumb.

15:11:44 4 Q Okay. And if the odds ratio is less than
15:11:46 5 two, what does the rule of thumb tell you?

15:11:51 6 A If it's once, then you have to think hard
15:12:00 7 whether you no follow up. However, if you have reason to
15:12:08 8 follow up and there is some consistency, then you have to
15:12:19 9 come up, you have to start wondering whether something is
15:12:28 10 there, because then I think consistency becomes a very
15:12:35 11 important factor.

15:12:36 12 Q Are there any rules of thumb regarding when
15:12:41 13 an odds ratio in a cohort study is considered to be
15:12:45 14 meaningful?

15:12:46 15 MR. McGUIRE: Incomplete hypothetical.
15:12:48 16 Cohort study in what discipline?

15:12:51 17 BY MR. CAFFERTY:

15:12:51 18 Q Epidemiology.

15:12:53 19 MR. McGUIRE: Okay. No foundation.
15:12:55 20 You can answer.

15:13:00 21 THE WITNESS: I would say both studies.
15:13:05 22 Cohort or case control.

15:13:06 23 BY MR. CAFFERTY:

15:13:06 24 Q Okay. So if the odds ratio is more than two,
15:13:11 25 then maybe there's something there, and if it's less than
15:13:14 26 two, then maybe there isn't something there? Is that what
15:13:16 27 the rule would be?

15:13:17 28 A I did not say that there isn't something
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15:13:20 1 there. There's more to it than just one of those
15:13:23 2 numbers. One of them is quality of the studies.

15:13:26 3 Another one is consistency, reproducibility
15:13:34 4 of what you've seen, so to speak. I'm an
15:13:37 5 experimentalist. So I can approach this only if -- if I'm
15:13:44 6 looking at an epi study as an experiment and the
15:13:49 7 experiment does not give exactly a convincing answer, but
15:13:57 8 I can replicate this experiment over and over again and
15:14:02 9 getting the same and same answer again, then I begin to
15:14:05 10 have some thoughts about how real it is.

15:14:07 11 Q At the beginning of your testimony today,
15:14:12 12 you told Mr. Kodsí about a presentation that you made I
15:14:17 13 believe it was last week?

15:14:20 14 A Tuesday.

15:14:21 15 Q On Tuesday. So it was earlier this week?

15:14:23 16 A Yes.

15:14:23 17 Q Actually, just a couple of days ago?

15:14:25 18 A Yes.

15:14:25 19 Q And what part of OEHA did you make that
15:14:30 20 presentation to?

15:14:30 21 A It's the -- what is it? The cancer group.

15:14:43 22 Q Was this a public meeting that you made the
15:14:47 23 presentation at?

15:14:48 24 A Yes.

15:14:48 25 Q And what was the purpose of the public
15:14:52 26 meeting? Oh. It was to consider gasoline and gasoline
15:14:54 27 combustion products.

15:14:55 28 And the nature of your testimony you talked
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15:14:59 1 about was about ozone and NOX, correct?

15:15:03 2 A Yes.

15:15:04 3 Q And what specifically did you tell OEHA about

15:15:08 4 ozone and NOX?

15:15:09 5 A That in my opinion, we do not have any

15:15:12 6 evidence that ozone causes lung cancer in experimental

15:15:19 7 animals. And we certainly do not have any evidence that

15:15:25 8 NOX causes lung cancer in experimental animals.

15:15:29 9 What we know from the human studies is that

15:15:32 10 air pollution causes lung cancer in man. But it's

15:15:38 11 extremely difficult to attribute it to any given specific

15:15:44 12 agent, like, for example, ozone or NOX. This is about

15:15:50 13 what came out of this meeting.

15:15:52 14 Q Did you discuss any of your own experimental

15:15:55 15 work with animals involving ozone and NOX?

15:15:58 16 A Yes.

15:15:58 17 Q And I understand that you've done some work

15:16:02 18 exposing the A/J mouse to ozone, correct?

15:16:05 19 A Yes.

15:16:05 20 Q And what did your -- what did your experiment

15:16:08 21 show with respect to whether or not ozone caused excess

15:16:12 22 tumors in the A/J mice?

15:16:14 23 A Ozone is not a Strain A mouse lung carcinogen.

15:16:21 24 Q How did the results that you obtained in your

15:16:23 25 ozone studies compare to the results that you obtained in

15:16:26 26 your ETS studies with the A/J mouse?

15:16:30 27 A The ETS studies were positive throughout,

15:16:36 28 every single one of them. The ozone study was actually

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15:16:42 1 done because after having worked with the ETS, I had

15:16:46 2 convinced myself that I had the protocol, which if

15:16:49 3 anything was to ozone, I was going to find it. And I did

15:16:54 4 not.

15:16:55 5 Q Have you ever performed any studies

15:16:59 6 regarding the A/J mouse in which you exposed them to ozone

15:17:03 7 and found that there were an excess amount of tumors

15:17:05 8 caused in the exposed mice?

15:17:09 9 A In one of my papers, it says so,

15:17:15 10 unfortunately. But with the benefit of hindsight, this

15:17:19 11 was a fluke, because the positive effect was not caused by

15:17:23 12 an increase in the lung tumors, but by an abnormal low

15:17:28 13 number in the controls.

15:17:29 14 Q Okay. What do you mean by a fluke?

15:17:33 15 A This happens. This is biological

15:17:44 16 variability. You might get a batch of animals who have a

15:17:48 17 lower than normal incidence.

15:17:51 18 Q Have you ever done any experiments where you

15:17:55 19 exposed the A/J mouse to NOX emissions and found an

15:17:59 20 increased number of tumors in the exposed mice?

15:18:03 21 A No.

15:18:11 22 Q Now, Mr. Kodsi asked you some questions about

15:18:13 23 the library research that you did and about the IARC

15:18:16 24 study. And I believe you explained that you had some

15:18:19 25 trouble identifying the IARC study because you knew it as

15:18:21 26 the Boffetta study; is that correct?

15:18:23 27 A When I was asked at the last deposition are

15:18:26 28 you familiar with the IARC study, yes, I should have asked

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15:18:31 1 to specify what was meant by this study.

15:18:34 2 Q At the time of the last deposition, were you

15:18:37 3 familiar with the Boffetta study?

15:18:40 4 A I knew Boffetta had done studies, but I was

15:18:44 5 not familiar with this particular one.

15:18:46 6 Q Had you read his study before the last

15:18:49 7 deposition?

15:18:51 8 A I don't recall.

15:18:53 9 Q Have you read it since that time?

15:18:57 10 A Yes.

15:18:57 11 Q And those were the exhibits that we talked

15:18:59 12 about before? I think it was 554 and 555, correct?

15:19:08 13 A Yes.

15:19:08 14 Q Now, at your prior depositions, parts of your

15:19:21 15 file had been produced. Do you recall that?

15:19:24 16 A Yes.

15:19:24 17 Q Okay. And now that we have Exhibit 549,

15:19:30 18 Exhibit 550, and then Exhibit 551 that Mr. McGuire brought

15:19:36 19 to us today, do we have your entire file regarding this

15:19:39 20 matter?

15:19:39 21 A Yes.

15:19:39 22 Q There's nothing else that exists regarding

15:19:42 23 this matter in your file?

15:19:44 24 A No.

15:19:44 25 Q Now, I think you mentioned this morning when

15:19:56 26 Mr. Kodsí asked you a question, that you thought that in

15:19:59 27 addition to AESI you were testifying on behalf of the

15:20:03 28 people of the State of California and the City of San Jose
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15:20:06 1 in this case? Did I hear that correctly?

15:20:08 2 A I should have -- yes.

15:20:10 3 Q Okay. Do you believe that you are testifying

15:20:13 4 on behalf of the people of the State of California and the

15:20:16 5 City of San Jose in this case?

15:20:18 6 A That's a technical, legal question. I really

15:20:29 7 can't answer.

15:20:30 8 Q Have you ever met with any representatives,

15:20:32 9 lawyers or anybody else from the City of San Jose?

15:20:35 10 A No.

15:20:36 11 Q Do you know the -- do you know the names of

15:20:41 12 any of the lawyers who are representing the City of

15:20:43 13 San Jose in this case?

15:20:46 14 A I assume from just what's usually in front of

15:20:53 15 those depositions, and so which says deposition in the

15:20:57 16 matter of so and so and so and so, I assume that

15:21:07 17 Mr. Carrick or the firm of Preston, Gates and Ellis was

15:21:10 18 representing --

15:21:12 19 Q The City of San Jose?

15:21:14 20 A Whatever --

15:21:16 21 MR. McGUIRE: That's what you assumed?

15:21:18 22 THE WITNESS: Yeah.

15:21:18 23 MR. McGUIRE: Just say --

15:21:19 24 THE WITNESS: Yeah. I assumed. Yeah.

15:21:23 25 BY MR. CAFFERTY:

15:21:24 26 Q Now, Mr. Kodsí asked you some questions, if I

15:21:28 27 may see 549. Asked you some questions about your expert

15:21:33 28 witness designation today. And Mr. McGuire, I think,
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15:21:36 1 helped us out a little bit in identifying that it was

15:21:39 2 prepared by the lawyers.

15:21:41 3 Let me show you Exhibit 549 and direct your

15:21:46 4 attention to PX-HW, and then it's one.

15:21:51 5 Do you have that in front of you?

15:22:01 6 A Yes.

15:22:01 7 Q Have you seen that document before?

15:22:03 8 A Yes.

15:22:03 9 Q And could you describe for the record what

15:22:05 10 that is?

15:22:09 11 A This expands on my original description, what

15:22:16 12 I was going to testify to.

15:22:17 13 Q Now, was that description in the document

15:22:21 14 that's labeled PX-HW-1, prepared by Mr. McGuire's firm?
15:22:28 15 A Yes.
15:22:30 16 MR. MCGUIRE: Calls for speculation.
15:22:32 17 BY MR. CAFFERTY:
15:22:32 18 Q You didn't prepare it, correct?
15:22:34 19 A No.
15:22:34 20 Q You did review it after it was prepared; is
15:22:37 21 that correct?
15:22:37 22 A That's correct.
15:22:39 23 Q All right. Now, let me tell you that I've
15:22:41 24 compared that to the designation that has been filed with
15:22:43 25 the Court, and I haven't seen any changes between that
15:22:46 26 designation in the letter and the designation with the
15:22:51 27 Court.
15:22:51 28 And you're free to compare it because we have
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15:22:54 1 that marked as an exhibit as well.
15:22:55 2 Did you make any changes? I assume you
15:22:59 3 didn't make any changes in the designation; is that
15:23:03 4 correct?
15:23:03 5 A That's correct.
15:23:04 6 MR. MCGUIRE: He didn't make any changes in
15:23:06 7 the paragraph that appears in the May 23 letter which
15:23:09 8 later became part of the designation which he did not
15:23:11 9 prepare, which was signed by me.
15:23:13 10 BY MR. CAFFERTY:
15:23:13 11 Q Did you suggest any changes be made in that
15:23:18 12 description?
15:23:19 13 A No, not that I recall.
15:23:23 14 Q Let's talk a little bit about the scientific
15:23:44 15 review panel for the California Air Resources Board. Do I
15:23:48 16 have that right? Was the scientific review panel --
15:23:50 17 A Yes.
15:23:51 18 Q -- something that was advising the California
15:23:54 19 Air Resources Board?
15:23:55 20 A I wouldn't call it advising. We, as I said
15:24:00 21 before, we review the documents for accuracy, current
15:24:10 22 scientific standards, and so then we transmit our findings
15:24:16 23 to the Air Resources Board.
15:24:18 24 Q Okay. Now, as I understood it, you joined
15:24:23 25 the scientific review panel in approximately 1991; is that
15:24:25 26 correct?
15:24:25 27 A Yes.
15:24:26 28 Q Are you still a member of the scientific
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15:24:28 1 review panel?
15:24:30 2 A Yes.
15:24:30 3 Q Over the nine years or so that you've been on
15:24:36 4 the panel, how many scientific documents has the panel
15:24:40 5 reviewed?
15:24:43 6 MR. MCGUIRE: No foundation.
15:24:45 7 You can just answer as far as what you know
15:24:48 8 they reviewed, not what you have no idea what other
15:24:52 9 scientists on this panel reviewed without your knowledge.
15:24:55 10 THE WITNESS: I would guess about two to
15:24:56 11 three dozen documents.
15:24:58 12 BY MR. CAFFERTY:
15:24:58 13 Q And what types of documents generally are
15:25:01 14 subject to review by the panel?
15:25:02 15 A Everything -- every risk assessment that's
15:25:13 16 being prepared on toxic air contaminants and more recently
15:25:20 17 on pesticides, we started reviewing risk assessments not
15:25:27 18 only prepared by OEHA, but also prepared by the Department

15:25:31 19 of Pesticides Regulation.

15:25:37 20 The general thing is the Air Resources Board

15:25:44 21 has to act on what is called toxic air contaminants. And

15:25:53 22 DPR, OEHA, prepared those documents, risk assessments for

15:25:58 23 toxic air contaminants.

15:26:00 24 We then review the risk assessment, and we

15:26:05 25 formulate our findings. And it's based on those findings,

15:26:14 26 the ARB then takes action, instigates regulatory action.

15:26:23 27 Q What regulatory actions did the Air

15:26:30 28 Resources Board take as a result of the ETS report that

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15:26:32 1 you reviewed?

15:26:33 2 A As far as I know, nothing.

15:26:34 3 Q You mentioned that one of the members of the

15:26:43 4 panel is a toxicologist; is that correct?

15:26:44 5 A Yes.

15:26:46 6 Q Who was the toxicologist who is a member of

15:26:50 7 the panel?

15:26:50 8 A He is also the chair of the panel. This is

15:26:53 9 Dr. Joan Froines from UCLA.

15:26:57 10 MR. McGUIRE: How do you spell that?

15:26:58 11 THE WITNESS: F-r-o-i-n-e-s.

15:27:01 12 MR. McGUIRE: Thank you.

15:27:04 13 BY MR. CAFFERTY:

15:27:04 14 Q And what other scientific disciplines are

15:27:06 15 represented on the panel? You said you were the

15:27:08 16 pathologist. He's the toxicologists. Are there other

15:27:12 17 scientific --

15:27:13 18 A There's an oncologist. There's an

15:27:15 19 epidemiologist. There is a atmospheric chemist. There is

15:27:24 20 a biostatistician. There is a chemist. There is a

15:27:32 21 molecular biologist, biochemist. And No. 9 escapes me

15:27:42 22 right now. I don't even know if we are number eight or

15:27:45 23 nine. If I can have two minutes, I can try to list out.

15:27:48 24 Oh, no. It's eight or nine. I don't know.

15:28:16 25 Q We'll call that close enough for government

15:28:18 26 work.

15:28:18 27 A Yes.

15:28:18 28 Q Who is the epidemiologist who serves on the

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15:28:21 1 panel?

15:28:21 2 A His name is Freedman.

15:28:22 3 Q What is his first name?

15:28:24 4 A I don't recall.

15:28:25 5 Q Where is he from?

15:28:26 6 A He was -- I think he's retired now. He was

15:28:31 7 for a long time with Kaiser Permanente.

15:28:35 8 Q Who is the biostatistician who serves on the

15:28:39 9 panel?

15:28:39 10 A Stanton Glantz.

15:28:43 11 Q And who is Stanton Glantz?

15:28:45 12 A Stanton Glantz is professor at the University

15:28:50 13 of San Francisco.

15:28:51 14 Q Is he also well known as an antitobacco

15:28:54 15 activist?

15:28:57 16 A Yes.

15:28:57 17 Q What is the difference between an

15:28:59 18 epidemiologist and a biostatistician?

15:29:02 19 MR. McGUIRE: No foundation.

15:29:03 20 You can answer as to what your understanding

15:29:08 21 is.

15:29:09 22 THE WITNESS: An epidemiologist designs,

15:29:16 23 analyzes epidemiologic studies. He might need the help of

15:29:21 24 a biostatistician in doing some more sophisticated
15:29:29 25 analysis than he is trained to.

15:29:31 26 As a toxicologist, I also might need a
15:29:35 27 biostatistician, and it could be the same person who can
15:29:39 28 do more sophisticated analysis than I am able to do.

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15:29:43 1 BY MR. CAFFERTY:
15:29:43 2 Q Now, what I'd like to do is I'd like to talk
15:29:48 3 generally about how the panel does its review work and
15:29:53 4 then talk specifically about how the panel did its review
15:29:56 5 work with respect to the ETS report.
15:29:59 6 So if you can follow me on that, that's the
15:30:03 7 direction I'd like to go in.
15:30:04 8 Could you tell me generally what the steps
15:30:07 9 are that the panel takes when it reviews one of these risk
15:30:11 10 assessments for a toxic air contaminant?
15:30:16 11 MR. McGUIRE: Just to -- you're going to ask
15:30:19 12 him how the scientific review panel for the California Air
15:30:21 13 Resources Board did its work on ETS?
15:30:24 14 MR. CAFFERTY: No. I'm going to ultimately
15:30:26 15 ask him about that. But right now, I'm asking him
15:30:29 16 generally how they do their reviews.
15:30:31 17 MR. McGUIRE: Okay. I don't know -- have we
15:30:33 18 established that they have done work on ETS?
15:30:35 19 MR. CAFFERTY: Oh, yeah.
15:30:35 20 MR. McGUIRE: Okay.
15:30:36 21 MR. CAFFERTY: He was asked about that
15:30:37 22 earlier today.
15:30:37 23 MR. McGUIRE: I thought that was Cal EPA, not
15:30:40 24 California Air Resources Board.
15:30:42 25 But go ahead.
15:30:44 26 THE WITNESS: Usually the way the panel works
15:30:47 27 is when we know a document is coming up or is in the
15:30:52 28 making, we usually assign two lead persons: one for the
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15:31:01 1 biological part and one for the exposure part. I
15:31:04 2 mentioned earlier today there is Parts A and Parts B.
15:31:08 3 BY MR. CAFFERTY:
15:31:08 4 Q Okay.
15:31:08 5 A The latest one I was involved in, I was the
15:31:11 6 lead person. This was MITC. This is the composition
15:31:15 7 product of metisolum. And if you remember, you know
15:31:19 8 about ten years ago, there was the train keeling over in
15:31:26 9 the Contara Loop. That's near Dunsmuir. And it also is
15:31:35 10 anointed if you use certain pesticides.
15:31:37 11 So I was the lead person for the biological,
15:31:42 12 and Roger Achison was the lead person for the exposure.
15:31:47 13 What the lead person does is more or less as
15:31:53 14 staff develops those documents, looking sometimes over
15:31:56 15 their shoulders or being asked questions should we include
15:32:02 16 this or what do we think about that one. It's really
15:32:06 17 helping them a way.
15:32:08 18 And what the lead person certainly also does
15:32:10 19 is when the document is finished, giving it the very
15:32:14 20 first, very close look, because those documents always
15:32:18 21 contain some errors.
15:32:21 22 What the lead person really wants to do is do
15:32:24 23 a short, that when the whole committee looks at the
15:32:30 24 document, it's already in reasonably good shape, which
15:32:35 25 does not mean that the whole committee then has quite a
15:32:40 26 few things to say on their own.
15:32:41 27 And then if we have looked at the document,
15:32:48 28 there are two possibilities. Either the committee

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15:32:52 1 endorses the document and the findings which were derived
 15:32:57 2 from the document and prepares them to send on to ARB.
 15:33:04 3 However, this very seldom happens the first
 15:33:07 4 time around. Most of the time, the documents are being
 15:33:11 5 sent back for revision, before we accept them.
 15:33:17 6 And I've seen documents going through three,
 15:33:20 7 four, five, six such cycles.
 15:33:24 8 Q Is that the whole process, then?
 15:33:29 9 A Yes. Once we have been through all those
 15:33:34 10 revisions, then it's forwarded to the SR -- to the Air
 15:33:38 11 Resources Board.
 15:33:39 12 Q Okay.
 15:33:40 13 A And the other thing is that everything is on
 15:33:44 14 the public record, we do.
 15:33:46 15 Q Are all your meetings -- are all the meetings
 15:33:53 16 of the scientific review panel held in public?
 15:33:56 17 A Yes.
 15:33:56 18 Q There are no private meetings?
 15:33:58 19 A No. As a matter of fact, we have to be very
 15:34:01 20 careful when we are having lunch not to sit together.
 15:34:06 21 Q Okay. All right. When the lead person
 15:34:10 22 reviews the risk assessment document, does the lead person
 15:34:14 23 prepare any written analysis --
 15:34:17 24 A No.
 15:34:18 25 Q -- of the risk assessment?
 15:34:19 26 A No. I never did. I don't know about my
 15:34:22 27 other colleagues who were lead person. I never did.
 15:34:25 28 Q How many times have you been lead person for
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 15:34:27 1 one of these document reviews?
 15:34:28 2 A About Three times.
 15:34:29 3 Q Which -- which chemicals were you responsible
 15:34:31 4 for?
 15:34:32 5 A Tutadyne, lead, and MITC.
 15:34:36 6 Q When the presentation is made by the -- and
 15:34:47 7 did I understand this correctly? The lead person does the
 15:34:50 8 analysis of the portion of the documents that are
 15:34:53 9 assigned, either biological or exposure, and then that
 15:34:56 10 person makes a presentation to the full committee?
 15:34:58 11 A No.
 15:34:59 12 Q I'm sorry. Could you explain to me what
 15:35:02 13 happens after the lead person makes their examination of
 15:35:05 14 the document?
 15:35:06 15 A The presentation to the full committee is
 15:35:09 16 made by staff who prepared the document.
 15:35:12 17 Q Okay. And what role does the lead person
 15:35:18 18 play in that presentation?
 15:35:21 19 A No special role. He sits there with the
 15:35:24 20 other ones and listens and just hopes that the full
 15:35:29 21 committee is not going to find some glaring errors he
 15:35:33 22 might have overlooked.
 15:35:35 23 Q Does the lead person ever communicate his or
 15:35:40 24 her review of the document to the other members of the
 15:35:44 25 panel?
 15:35:46 26 A What do you mean by communicate?
 15:35:48 27 Q Tell them what -- tell them what you found.
 15:35:51 28 Let's say, for example, when you were the lead person
 Vail, Christians & Associates (619)544-8344 563
 15:35:53 1 investigating the biological portion of the MITC --
 15:35:57 2 A MITC.
 15:35:59 3 Q -- document, did you communicate what you saw
 15:36:02 4 in reviewing the document to the other panel members?

15:36:05 5 A No. Because when the panel sees this
15:36:09 6 document, it's the improved version, which I helped to
15:36:12 7 improve.

15:36:13 8 Q Oh. I see. Okay. So the lead person
15:36:15 9 reviews it and submits your comments to the agency for
15:36:18 10 them to incorporate in the revised document?

15:36:21 11 A Right.

15:36:22 12 Q Okay.

15:36:23 13 VIDEOGRAPHER: Excuse me, Counsel. I need to
15:36:23 14 do a tape change.

15:36:23 15 MR. CAFFERTY: Okay. Why don't we do that
15:36:23 16 now, and then we'll come right back.

15:36:23 17 VIDEOGRAPHER: We are off the record. This
15:36:23 18 concludes Tape 2 of the deposition, and the time is 3:36.
15:36:23 19 (Recess.)

15:36:23 20 VIDEOGRAPHER: We are back on the record.
15:36:23 21 This begins Tape 3 of the deposition of Hanspeter Witschi,
15:36:23 22 and the time is 3:42.

15:36:23 23 BY MR. CAFFERTY:

15:36:23 24 Q Okay. Dr. Witschi, I'd like to just go
15:36:23 25 through this scientific review panel process a little bit
15:36:23 26 more with you.

15:36:23 27 And just to make sure that I understand, as
15:36:23 28 the lead person then on this MITC study, you reviewed the
Vail, Christians & Associates (619)544-8344 564
15:36:23 1 initial draft report and then provided comments to the
15:36:23 2 agency staff that was preparing that report which you
15:36:23 3 expected them to incorporate in a revised draft; is that
15:36:23 4 right?

15:36:23 5 A That's correct.

15:36:23 6 Q And that's the way the process typically
15:36:23 7 works?

15:36:23 8 A Yes.

15:36:23 9 Q And when you provided comments, I also
15:36:23 10 understood you to say before that those comments were not
15:36:23 11 provided in writing and that typically you didn't provide
15:36:23 12 comments in writing to the agency staff when you were the
15:36:23 13 lead person?

15:36:23 14 A No. In those instances I was the lead
15:36:23 15 person, I did not submit written comments to the staff.

15:36:23 16 Q Okay. Do you know if the practice of any of
15:36:23 17 the other panel members was to provide written comments to
15:36:23 18 the staff when they were the lead person?

15:36:23 19 A I do not know.

15:36:23 20 Q Okay. Now, after reviewing the initial
15:36:23 21 draft, is that the end of -- and providing comments to the
15:36:23 22 staff, is that the end of the lead person's special role
15:36:23 23 in the process?

15:36:23 24 A Not necessarily. Because this happened to me
15:36:23 25 with the MITC, when the panel was through with its
15:36:23 26 comments on the first draft, the panel brought up some
15:36:23 27 things I had not brought up.

15:36:23 28 So the lead -- the staff member who wrote the
Vail, Christians & Associates (619)544-8344 565
15:36:23 1 document every so often checked back with me and filled me
15:36:23 2 out whether these revisions were done in the spirit of the
15:36:23 3 comments made by the panel.

15:36:23 4 Q Okay. All right. Let's talk then about how
15:36:23 5 the panel reviewed the ETS document. And, first, could
15:36:23 6 you tell me was Stanton Glantz on the panel at that time?

15:36:23 7 A Yes.

15:36:23 8 Q Was John Froines on the panel at that time?

15:36:23 9 A Yes.

15:36:23 10 Q Who was the lead person on the panel for the
15:36:23 11 biological review?
15:36:23 12 A I don't recall. My --
15:36:23 13 MR. McGUIRE: That's an answer.
15:36:23 14 THE WITNESS: I don't recall.
15:36:23 15 BY MR. CAFFERTY:
15:36:23 16 Q Who was the lead person on the panel for the
15:36:23 17 exposure review?
15:36:23 18 A As far as I remember, this was Jim Seiber,
15:36:23 19 S-e-i-b-e-r.
15:36:23 20 Q To the best of your recollection, was either
15:36:23 21 Stanton Glantz or John Froines the lead person for the
15:36:23 22 biological review?
15:36:23 23 A I don't remember. All I remember is there
15:36:23 24 were some discussion that Stanton should be the lead
15:36:23 25 person. But I forgot -- I have forgotten the outcome.
15:36:23 26 Q What do you recall about the discussion that
15:36:23 27 Stanton Glantz should be the lead person?
15:36:23 28 A I think it was mentioned, and, again, this
Vail, Christians & Associates (619)544-8344 566
15:36:23 1 could be easily found in the public records of those
15:36:23 2 meetings. That may be he was involved too much with the
15:36:23 3 issue, as being and so should not be the lead person.
15:36:23 4 Q Okay. But you don't know whether or not --
15:36:23 5 you don't recall whether or not he was the lead person in
15:36:23 6 this case?
15:36:23 7 A I do not recall.
15:36:23 8 Q At the time you joined the panel in
15:36:23 9 approximately 1991, what was the status of the preparation
15:36:23 10 of the ETS risk assessment?
15:36:23 11 A The first meeting I attended was that the
15:36:23 12 panel urged the OEHA to go ahead with the risk assessment.
15:36:23 13 Q All right. So the panel advised OEHA to
15:36:23 14 proceed to prepare a risk assessment?
15:36:23 15 A Yes.
15:36:23 16 Q So would it be fair to state that at the time
15:36:23 17 you joined the panel in 1991, there was not yet a draft
15:36:23 18 risk assessment?
15:36:23 19 A I don't recall whether there was a draft and
15:36:23 20 the panel said go ahead and further develop or whether we
15:36:23 21 started -- OEHA had to start from scratch.
15:36:23 22 Q Okay. When do you first recall the panel
15:36:23 23 reviewing a draft risk assessment document either in whole
15:36:23 24 or in part?
15:36:23 25 A I don't recall the date.
15:36:23 26 Q Do you recall how many such drafts the panel
15:36:23 27 reviewed?
15:36:23 28 A I don't recall either the exact number.
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15:36:23 1 Q During the time that the ETS risk assessment
15:36:23 2 report was being drafted, were there other toxic air
15:36:23 3 contaminant risk assessments being reviewed by the panel?
15:36:23 4 A Yes.
15:36:23 5 Q During the time that the ETS risk assessment
15:36:23 6 was being drafted, were there other risk assessments
15:36:23 7 regarding pesticides that were being reviewed by the
15:36:23 8 panel?
15:36:23 9 A I don't think so.
15:36:23 10 Q Is that because pesticide risk assessments
15:36:23 11 were not being reviewed by the panel at that time?
15:36:23 12 A No. It was because the Department of
15:36:23 13 Pesticides Regulation was less than forthcoming and
15:36:23 14 productive in producing risk assessments.

15:36:23 15 Q All right. So they didn't present anything
15:36:23 16 to you to review during that period of time?
15:36:23 17 A They dragged their feet.
15:36:23 18 Q Okay. Now I want to focus on your
15:36:23 19 involvement with the panel and your involvement in
15:36:23 20 reviewing the draft ETS risk assessment report.
15:36:23 21 And, by the way, Mr. McGuire raised a point
15:36:23 22 before about the difference between Cal EPA and CARB. Who
15:36:23 23 was it that was actually responsible for preparing this
15:36:23 24 ETS risk assessment report?
15:36:23 25 A I think it was OEHA.
15:36:23 26 Q What was CARB's role in that process?
15:36:23 27 A I -- I have to make a guess. I'm not too
15:36:23 28 familiar with the intricacies of the governmental
Vail, Christians & Associates (619)544-8344 568
15:36:23 1 bureaucracy in the State of California.
15:36:23 2 All I can tell you is when we look again at
15:36:23 3 any of those risk assessments, the exposure part is
15:36:23 4 written by people who are affiliated with the Air
15:36:23 5 Resources Board. I wouldn't know what division. I
15:36:23 6 wouldn't know what branch.
15:36:23 7 And the health part is associated also with
15:36:23 8 OEHA. And I have to confess I do not know part of which
15:36:23 9 OEHA is.
15:36:23 10 Q Okay.
15:36:23 11 A I never looked at all those boxes.
15:36:23 12 Q Okay. So I guess the answer is you really
15:36:23 13 don't know what CARB's role was versus OEHA's role in the
15:36:23 14 preparation of the ETS risk assessment?
15:36:23 15 MR. McGUIRE: Other than he answered,
15:36:23 16 speculatively, probably.
15:36:23 17 THE WITNESS: Yeah. No, I don't know.
15:36:23 18 BY MR. CAFFERTY:
15:36:23 19 Q During the course of the panel's review of
15:36:23 20 the draft ETS risk assessment, do you recall how many
15:36:23 21 times you personally reviewed a draft of that document?
15:36:23 22 A No, I don't.
15:36:23 23 Q Do you recall how many public meetings you
15:36:23 24 participated in as a panel member regarding the review of
15:36:23 25 that draft document?
15:36:23 26 A At least one.
15:36:23 27 Q Could there have been more than one?
15:36:23 28 A There could have, but I -- there is one I
Vail, Christians & Associates (619)544-8344 569
15:36:23 1 distinctly remember having been there. There could have
15:36:23 2 been more than one, maybe two.
15:36:23 3 Q When you reviewed drafts of the document, do
15:36:23 4 you recall approximately how much time you spent reviewing
15:36:23 5 that draft?
15:36:23 6 A No, I don't recall.
15:36:23 7 Q Would it be more than ten hours?
15:36:23 8 A I don't know.
15:36:23 9 Q Would it be more than a hundred hours?
15:36:23 10 A No.
15:36:23 11 Q Would it be more than 50 hours?
15:36:23 12 A No.
15:36:23 13 Q Would it be more than 20 hours?
15:36:23 14 A I really don't know. I can't narrow it down
15:36:23 15 that much.
15:36:23 16 Q When you reviewed a draft of the risk
15:36:23 17 assessment document, did you ever go back and read any of
15:36:23 18 the studies that were referenced in that document?
15:36:23 19 A When this document was being developed, I was

15:36:23 20 already doing my research on ETS. So, yes, I probably
15:36:23 21 read many studies which were referenced in this
15:36:23 22 document. But I do not recall having gone back to
15:36:23 23 especially one or two. I don't recall.

15:36:23 24 Q Okay. In total, during the course of the
15:36:23 25 panel's review of the ETS risk -- draft risk assessment,
15:36:23 26 about how much time did you personally devote to reviewing
15:36:23 27 that document?

15:36:23 28 A I couldn't give an answer to that one.
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15:36:23 1 Q Would it be more than a hundred hours?

15:36:23 2 A No.

15:36:23 3 Q Would it be more than 50 hours?

15:36:23 4 A It might have been around 50 hours, all
15:36:23 5 included.

15:36:23 6 Q Did you ever read the entire risk assessment
15:36:23 7 report, ETS risk assessment report from cover to cover?

15:36:23 8 A I think so.

15:36:23 9 Q When did you do that?

15:36:23 10 A It must have been when we got one or the
15:36:23 11 other of those drafts.

15:36:23 12 Q How long did it take you to do that?

15:36:23 13 A I don't recall.

15:36:23 14 Q Did you find any -- did you personally, not
15:36:23 15 the panel, but you personally, did you find any flaws in
15:36:23 16 the draft ETS risk assessment report?

15:36:23 17 A Again, we went over many -- we went through
15:36:23 18 three or four revisions, I think. And I do again not
15:36:23 19 recall whether one of the reasons it was revised, whether
15:36:23 20 it was a comment I made. I do not recall.

15:36:23 21 Q I'm not asking whether or not the document
15:36:23 22 was revised because of any comments you made.

15:36:23 23 What I'm wondering is whether when you
15:36:23 24 reviewed it, you personally observed anything that you
15:36:23 25 thought was wrong in the draft risk assessment?

15:36:23 26 A I don't recall.

15:36:23 27 Q Have you ever read the final ETS risk
15:36:23 28 assessment report from cover to cover?

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15:36:23 1 A I read it. I did not -- I couldn't say from
15:36:23 2 cover to cover, but I read it. Yes.

15:36:23 3 Q Okay. Are there any parts of the final risk
15:36:23 4 assessment report that you recall specifically reading?

15:36:23 5 A I certainly read cancer, and I read some of
15:36:23 6 the exposure. I read some childhood disease, yes.

15:36:23 7 Q Is there anything in the discussion of cancer
15:36:23 8 in the ETS risk assessment report -- when we're talking
15:36:23 9 about this, we're talking about Exhibit 418.

15:36:23 10 A Yes.

15:36:23 11 Q That big thick exhibit. That's the one
15:36:23 12 you --

15:36:23 13 MR. McGUIRE: 486.

15:36:23 14 MR. CAFFERTY: 486. Excuse me.

15:36:23 15 MR. McGUIRE: 468.

15:36:23 16 MR. CAFFERTY: 468. Thank you, Mr. McGuire.

15:36:23 17 I'm glad we brought you along.

15:36:23 18 MR. McGUIRE: Thank you.

15:36:23 19 BY MR. CAFFERTY:

15:36:23 20 Q We're talking about Exhibit 468, the Cal EPA
15:36:23 21 risk assessment report. And in reviewing the cancer
15:36:23 22 portion of that document, is there anything that you
15:36:23 23 disagree with in that final document?

15:36:23 24 A No.

15:36:23 25 Q In reviewing the childhood disease portion of
15:36:23 26 the Cal -- excuse me -- of the ETS risk assessment, is
15:36:23 27 there anything in that document that you disagree with?
15:36:23 28 MR. McGUIRE: Okay. I'm assuming that your
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15:36:23 1 question means any conclusions in that document.
15:36:23 2 MR. CAFFERTY: Well, anything. I mean,
15:36:23 3 conclusions or otherwise.
15:36:23 4 MR. McGUIRE: Well, the problem is that the
15:36:23 5 document, as he's described already, has exhibits or
15:36:23 6 appendices to it that state ETS is not a risk, according
15:36:23 7 to Dr. Carchman. And then there is a response. So,
15:36:23 8 obviously, it's conflicting. You can't agree with both
15:36:23 9 sides of that question.
15:36:23 10 MR. CAFFERTY: I'm not talking about the
15:36:23 11 appendices. Let's leave the appendices out. Let's talk
15:36:23 12 about the body of the report and what the report has to
15:36:23 13 say about cancer. And I appreciate the clarification.
15:36:23 14 That's very helpful.
15:36:23 15
15:36:23 16 EXAMINATION
15:36:23 17 BY MR. CAFFERTY:
15:36:23 18 Q In the body of the report regarding cancer,
15:36:23 19 is there anything with which you disagree?
15:36:23 20 A No.
15:36:23 21 Q Okay. In the body of the report regarding
15:36:23 22 childhood diseases, is there anything with which you
15:36:23 23 disagree?
15:36:23 24 A No.
15:36:23 25 Q In the body of the report regarding exposure,
15:36:23 26 is there anything with which you disagree?
15:36:23 27 A No.
15:36:23 28 Q During the course of the panel's review of
Vail, Christians & Associates (619)544-8344 573
15:36:23 1 the draft EPA -- excuse me -- draft ETS risk assessment,
15:36:23 2 did you ever have any discussions with John Froines other
15:36:23 3 than as part of the panel discussions regarding the draft
15:36:23 4 document?
15:36:23 5 A No.
15:36:23 6 Q During the course of the panel's review of
15:36:23 7 the draft ETS risk assessment document, did you ever have
15:36:23 8 any discussions with Stanton Glantz outside of discussions
15:36:23 9 that the panel held?
15:36:23 10 A Yeah. I recall on one occasion I asked him
15:36:23 11 when he published his paper on ETS and coronary disease
15:36:23 12 and gave us an estimate of how many deaths this was
15:36:23 13 causing annually, I asked him how he arrived at this
15:36:23 14 number. And he gave me an explanation.
15:36:23 15 Q What did he tell you?
15:36:23 16 A He said from mortality statistics, and that's
15:36:23 17 essentially what I remember.
15:36:23 18 Q Now, as I understand your testimony today --
15:36:23 19 and correct me if I'm wrong -- you're not going to offer
15:36:23 20 any opinions regarding the causal relationship between ETS
15:36:23 21 exposure and coronary heart disease; is that correct?
15:36:23 22 A That's correct.
15:36:23 23 Q Have you ever had any discussions with
15:36:23 24 Stanton Glantz about any other ETS topics?
15:36:23 25 A Well, in it must have been 1992 I invited him
15:36:23 26 to give a presentation at the meeting I organized at
15:36:23 27 UC Davis. And the meeting was air pollutants in the
15:36:23 28 national parks. And so I had people talking about air
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15:36:23 1 pollutions and human health. And since ETS at the time
 15:36:23 2 being was making the headlines through the U.S. EPA
 15:36:23 3 report, I asked Stan to come up to Davis and give a talk
 15:36:23 4 on ETS.

15:36:23 5 Q And what was the subject of his talk on ETS?

15:36:23 6 A Well, he essentially said it's a big risk,
 15:36:23 7 causes lung cancer, causes -- is a considerable source for
 15:36:23 8 disease. This must have been '92 or '93.

15:36:23 9 Q Okay. Other than discussions you may have
 15:36:23 10 had with Stanton Glantz in connection with that 1992 or
 15:36:23 11 '93 presentation at Davis, have you ever discussed ETS
 15:36:23 12 topics with him on any other occasions?

15:36:23 13 A Not that I recall having had any substantial
 15:36:23 14 discussion with him.

15:36:23 15 Q Mr. Kodsí asked you about the Boffetta
 15:36:23 16 studies, 554 and 555, and he asked you if those were in
 15:36:23 17 the very good, very bad, or gray zone categories of
 15:36:23 18 epidemiology studies. And I believe you said they were in
 15:36:23 19 the gray zone; is that correct?

15:36:23 20 A Correct.

15:36:23 21 Q Okay. What are they missing that would put
 15:36:23 22 them into the very good category?

15:36:23 23 THE REPORTER: Excuse me, Counsel. May I go
 15:36:23 24 off the record for a minute.

15:36:23 25 MR. CAFFERTY: Yes.
 15:36:23 26 (Discussion off the record.)

15:36:23 27 VIDEOGRAPHER: We are back on the record.
 15:36:23 28 And the time is 4:07.

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16:03:26 1 BY MR. CAFFERTY:

16:06:53 2 Q Dr. Witschi, before we took our recent -- our
 16:06:58 3 short technical break, I had asked you a question. Let me
 16:07:01 4 repose the question to you and rephrase it for you.

16:07:03 5 The question was with respect to the Boffetta
 16:07:10 6 studies, Exhibits 554 and 555, what are those studies
 16:07:18 7 missing that would take them from the gray area and put
 16:07:21 8 them into the very good area?

16:07:22 9 A I really would like to ask an epidemiologist
 16:07:25 10 on their evaluation of this study. As far as the large
 16:07:31 11 Boffetta study is concerned, I was struck by the fact that
 16:07:36 12 the confidence, 95-percent confidence interval, is really
 16:07:46 13 a fraction below one.

16:07:47 14 And what makes me a bit uncertain is it's
 16:07:55 15 really a multicenter study. And without being a trained
 16:08:00 16 epidemiologist, I could see just on first principles that
 16:08:06 17 a multicenter study has inherently more uncertainties
 16:08:12 18 because, simply, work might not be done in all centers
 16:08:18 19 with the same degree of whatever.

16:08:24 20 And then the other thing I really would like
 16:08:28 21 to know and, again, that's why I said I'm not a trained
 16:08:34 22 statistician. I have a working knowledge of statistics.
 16:08:40 23 And so it's how good was the power of this study. I know
 16:08:44 24 they designed it to have a power so they could come to a
 16:08:51 25 .05 resolution with an increased risk of 1.3. But this
 16:08:56 26 being so close below one then makes me wonder whether --
 16:09:04 27 how much it would have taken to change this number
 16:09:07 28 appreciably.

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16:09:08 1 Q What do you mean when you say the power of
 16:09:10 2 the study?

16:09:11 3 A There are some procedures in which you can
 16:09:17 4 calculate if you expect to find a difference, and in this
 16:09:23 5 case, if they expected to find an increase risk, if I

16:09:31 6 recall correctly, of 1.3, with a confidence interval,
16:09:35 7 let's say, 95 percent on either side of .2, which would
16:09:47 8 have it pulled from 1.1 to 1.5, and, thus, made it, if I
16:09:54 9 may say so amicably vocal, then they would need so and so
16:10:00 10 many cases and so many control cases. You can calculate
16:10:03 11 those things.

16:10:06 12 If you set the criteria you're going to be
16:10:09 13 willing to accept -- don't ask me how to do this, but I
16:10:12 14 know it can be done. And that's what modern computer
16:10:15 15 programs are all about. If you set the criteria what to
16:10:20 16 accept at what level of confidence, the computer can tell
16:10:27 17 you how many experiments you need to do or how many
16:10:30 18 animals you have to have -- how many animals you have to
16:10:32 19 have per group. And in the case of the Boffetta study, I
16:10:36 20 think they did this. And now that's guess. But probably
16:10:45 21 analyze the study when they had reached this magical
16:10:48 22 number.

16:10:48 23 If there's one thing that has stricken me in
16:10:53 24 looking how this epi studies evolved over the years, then
16:11:03 25 it's really the more cases they are, the narrower the
16:11:06 26 confidence intervals become, which is naturally. But,
16:11:12 27 also, they move above one.

16:11:16 28 Q Have you tried to calculate what the power
Vail, Christians & Associates (619)544-8344 577
16:11:19 1 was for the Boffetta multicenter study?

16:11:23 2 A No.

16:11:23 3 Q Is that something that you could even do?

16:11:25 4 A I could not do this.

16:11:27 5 Q Okay. When we're talking about the Kreuzer
16:11:34 6 study, I believe you used the term very strong. What did
16:11:37 7 you mean by that term?

16:11:38 8 A Can I have a look at it.

16:11:40 9 Q Sure.

16:11:46 10 A Where would it be.

16:11:58 11 MR. CAFFERTY: You know what, I'm not sure,
16:12:02 12 Dr. Witschi, that we did mark that. I think Mr. Kodsi may
16:12:05 13 have a copy of it if you'd like to take a look at it.

16:12:10 14 THE WITNESS: Yeah. I need to take a look at
16:12:11 15 it.

16:12:11 16 MR. KODSI: Yeah. We didn't mark that.
16:12:15 17 You want to mark it, Pat?

16:12:21 18 MR. CAFFERTY: Yes, please.

16:12:22 19 MR. KODSI: I believe we're on 557.
16:13:01 20 (Exhibit 557 was marked for identification.)

16:13:01 21 THE WITNESS: What in my opinion made it
16:13:04 22 strong is there are two sets of data with very high odds
16:13:12 23 ratio. 1.9 and 2.6. And confidence intervals. And then
16:13:22 24 you shouldn't judge, obviously, a study by its results.

16:13:26 25 But also what struck me as this making a
16:13:29 26 strong one is it probably dealt with a very homogeneous
16:13:39 27 population, much more homogeneous as the multicenter study
16:13:45 28 because -- yes. There is stuck two cases if they were
Vail, Christians & Associates (619)544-8344 578
16:14:07 1 younger --

16:14:08 2 MR. McGUIRE: Are you saying they stuck to?

16:14:10 3 THE WITNESS: They selected cases.

16:14:12 4 MR. McGUIRE: Okay.

16:14:13 5 THE WITNESS: If they were younger than 75
16:14:14 6 years, they were current residents in the study region,
16:14:20 7 and they have lived longer than 25 years in Germany, which
16:14:24 8 makes it a very homogeneous population. So I think that
16:14:27 9 was the strength of the study.

16:14:29 10 BY MR. CAFFERTY:

16:14:29 11 Q Okay. I guess I misunderstood something you
16:14:32 12 said before, because I thought you also said that the
16:14:37 13 Kreuzer study had odds ratios of 1.3 to 1.4. Did I
16:14:41 14 misunderstand that?
16:14:42 15 A I might have. Earlier this morning?
16:14:48 16 Q When Mr. Kodsi was asking you earlier this
16:14:50 17 afternoon.
16:14:51 18 A Yes. I did not have it in front of me.
16:14:54 19 That's what I remembered at the time being.
16:14:55 20 Q You just testified now that there are two
16:14:58 21 odds ratio. 1.9 and 2.6?
16:15:00 22 A There are three.
16:15:01 23 Q All right. What are the three?
16:15:02 24 A The one is ETS exposure at the workplace.
16:15:08 25 The odds ratio is 1.93. In vehicles is 2.64. And from
16:15:14 26 all sources combined is 1.39.
16:15:20 27 Q With respect to the workplace number, do you
16:15:28 28 know how that odds ratio number compares to other odds
Vail, Christians & Associates (619)544-8344 579
16:15:33 1 ratios in the epidemiological literature regarding
16:15:36 2 workplace exposure to ETS?
16:15:40 3 A I wouldn't know offhand.
16:15:42 4 Q Have you ever reviewed the workplace
16:15:45 5 epidemiology exposure reports?
16:15:50 6 A No.
16:15:50 7 Q Okay. Can I have 549 again, please.
16:16:16 8 Thank you. Mr. Kodsi asked you some
16:16:34 9 questions about the documents that appear in 549, and I'm
16:16:37 10 going to now turn to that and ask you some questions about
16:16:40 11 it as well.
16:16:41 12 The first thing I want to ask you about is
16:16:44 13 the Philip Morris website it's described as, and it's in
16:16:50 14 Exhibit 549. It's C-IR-1 through 11. So let me put that
16:17:00 15 in front of you.
16:17:15 16 Do you have that in front of you now,
16:17:17 17 Mr. Witschi?
16:17:18 18 A Yes.
16:17:18 19 Q Now, that's a document that Mr. McGuire
16:17:20 20 provided to you, is that correct?
16:17:22 21 A Yes.
16:17:22 22 Q Prior to Mr. McGuire providing that to you,
16:17:25 23 have you ever seen it before?
16:17:26 24 A As I said this morning, I've seen bits and
16:17:29 25 pieces of it. There were some remarks in there which were
16:17:35 26 very familiar.
16:17:38 27 Q Okay. I understand that, but my question was
16:17:42 28 a little bit more precise. My question was have you ever
Vail, Christians & Associates (619)544-8344 580
16:17:45 1 seen this particular document prior to the time that
16:17:47 2 Mr. McGuire provided it to you?
16:17:49 3 A No.
16:17:49 4 Q Okay. Now, after Mr. McGuire provided it to
16:17:52 5 you, have you had an opportunity to review that document?
16:17:58 6 A I looked it over, and --
16:18:02 7 MR. MCGUIRE: That's -- that's it.
16:18:04 8 THE WITNESS: Yes.
16:18:04 9 MR. MCGUIRE: Just answer the question.
16:18:05 10 BY MR. CAFFERTY:
16:18:05 11 Q Okay. Very simple questions.
16:18:07 12 A Yes.
16:18:08 13 Q And the simpler the answers, the faster we
16:18:11 14 might be able to get through this. And Mr. McGuire is
16:18:13 15 trying to help us all here.

16:18:15 16 Now, I understood that you said that you
16:18:18 17 thought that this document was somewhat dated. What did
16:18:22 18 you mean by that statement that it's dated?
16:18:24 19 A I meant by this that all these documents took
16:18:38 20 issue with and takes actually issue with, refers to the
16:18:46 21 1972 U.S. EPA document.
16:18:48 22 MR. McGUIRE: '72, or '92?
16:18:50 23 THE WITNESS: 1992 EPA document.
16:18:54 24 BY MR. CAFFERTY:
16:18:54 25 Q In reviewing this document and based on the
16:19:00 26 current state of scientific knowledge regarding ETS, is
16:19:04 27 there anything that you found in the Philip Morris website
16:19:09 28 with which you disagreed?
Vail, Christians & Associates (619)544-8344 581
16:19:15 1 MR. McGUIRE: Is the question does he
16:19:17 2 disagree with anything in this document?
16:19:19 3 BY MR. CAFFERTY:
16:19:19 4 Q On the Philip Morris website, yes.
16:19:22 5 MR. McGUIRE: Okay. No foundation. I don't
16:19:26 6 think he's reviewed it. I think you'd have to go page by
16:19:29 7 page.
16:19:29 8 THE WITNESS: Yes, there are things I would
16:19:31 9 disagree with.
16:19:32 10 BY MR. CAFFERTY:
16:19:32 11 Q Could you tell me the things with which you
16:19:37 12 disagree?
16:19:40 13 A Do we go it through page to page?
16:19:44 14 Q Well, first of all, have you had an
16:19:48 15 opportunity to review the Philip Morris website? And this
16:19:52 16 is described as the Philip Morris website. I don't know
16:19:54 17 whether it is or it isn't, but it certainly has been
16:19:57 18 described as such.
16:19:58 19 Have you had an opportunity to carefully
16:20:02 20 review it and determine whether or not you agree with
16:20:04 21 everything that's in there?
16:20:07 22 A I did not review it that carefully because,
16:20:12 23 again, the moment I saw it, I had this sinking feeling of
16:20:17 24 deja vu, and that's why I still maintained it's dated.
16:20:24 25 Q In reviewing this document or to the extent
16:20:35 26 you reviewed this document, did you identify anything in
16:20:40 27 this Philip Morris website that you found to be
16:20:44 28 inaccurate?
Vail, Christians & Associates (619)544-8344 582
16:20:48 1 MR. McGUIRE: No foundation.
16:20:51 2 THE WITNESS: I find it missing an important
16:20:56 3 aspect.
16:20:56 4 BY MR. CAFFERTY:
16:20:56 5 Q What was the aspect that you found to be
16:20:59 6 missing?
16:20:59 7 A This document only refers to the EPA study.
16:21:02 8 It does not refer to the Cal EPA study. It does not refer
16:21:07 9 to the SCOTH report. It does not refer to the Australian
16:21:11 10 or New Zealand's report. All documents on ETS which came
16:21:16 11 out later. So in this sense, just judging the whole issue
16:21:23 12 on the report that was written in 1992 is what I will
16:21:29 13 call, that's how I think it's dated.
16:21:31 14 Q All right. Let me direct your attention to
16:21:33 15 the page that's C-IR-1.
16:21:38 16 A Yes.
16:21:38 17 Q The title of this document appears to be --
16:21:42 18 actually, the title is "When it Comes to Environmental
16:21:46 19 Tobacco Smoke, What Does the Data Suggest?" Do you see
16:21:48 20 that at the top?

16:21:49 21 A Yes.
16:21:49 22 Q Then underneath, it says, Environmental
16:21:53 23 Tobacco Smoke and the Validity of the EPA Report on ETS."
16:21:58 24 Do you see that?
16:21:59 25 A Yes.
16:21:59 26 Q As a description of the environmental tobacco
16:22:03 27 smoke and the validity of the EPA report on ETS, in your
16:22:06 28 review of this document, did you identify anything that
Vail, Christians & Associates (619)544-8344 583
16:22:08 1 was inaccurate on the document?
16:22:10 2 MR. McGUIRE: That's a misleading question.
16:22:13 3 Objection. Foundation. He's made it clear that he didn't
16:22:15 4 review this line by line. If you want him, if you're
16:22:19 5 going to ask a question like that, then I suggest we go
16:22:22 6 page by page, line by line. And I think the better
16:22:25 7 question is is there anything that he agreed with, let
16:22:28 8 alone disagree with.
16:22:29 9 So to the extent and to your limited review,
16:22:36 10 which you haven't explained yet, can you answer that
16:22:38 11 question? Did you review it enough to give him an answer
16:22:42 12 as to which you agree with and which you didn't agree
16:22:45 13 with, before the deposition today?
16:22:47 14 THE WITNESS: I --
16:22:49 15 MR. CAFFERTY: Now, wait a minute. That was
16:22:51 16 not my question.
16:22:52 17 MR. McGUIRE: I know. That's the foundation
16:22:53 18 that's missing.
16:22:54 19 MR. CAFFERTY: I don't think it is missing
16:22:56 20 from it. I think we've talked about that he has reviewed
16:22:58 21 it, and I'm asking him based on his review of the document
16:23:01 22 so far -- and his answer may be he hasn't identified
16:23:05 23 anything because he hasn't reviewed it enough. And that's
16:23:07 24 fine if that's his answer.
16:23:08 25 BY MR. CAFFERTY:
16:23:08 26 Q But I want to know based on your review to
16:23:11 27 date of this document, have you identified anything in the
16:23:13 28 document that's inaccurate?
Vail, Christians & Associates (619)544-8344 584
16:23:16 1 MR. McGUIRE: No foundation.
16:23:23 2 Can you answer the question, Dr. Witschi?
16:23:26 3 THE WITNESS: Can I look at the document for
16:23:28 4 a while?
16:23:29 5 MR. McGUIRE: Oh, sure. I mean, I think you
16:23:30 6 can. Unless he wants to make it before you review the
16:23:34 7 document, before you came here today or something like
16:23:36 8 that.
16:23:36 9 BY MR. CAFFERTY:
16:23:36 10 Q That was what my question was, Dr. Witschi.
16:23:39 11 My question is based on the review that you
16:23:41 12 performed before today, before coming to the deposition
16:23:43 13 today, did you identify anything in that document that was
16:23:47 14 inaccurate?
16:23:51 15 A No.
16:23:53 16 Q Okay.
16:24:11 17 MR. McGUIRE: It's okay. I'm going to ask
16:24:13 18 you about it line by line.
16:24:15 19 BY MR. CAFFERTY:
16:24:15 20 Q Now, referring back to Exhibit 549, let me
16:24:25 21 direct your attention to the page that has the notation
16:24:28 22 PX-HW-6.
16:24:35 23 MR. McGUIRE: Is this the same? 549?
16:24:38 24 MR. CAFFERTY: Yes.
16:24:54 25 BY MR. CAFFERTY:

16:24:54 26 Q Do you have that in front of you?
16:24:56 27 A Yes. 00006?
16:25:00 28 Q Right.
Vail, Christians & Associates (619)544-8344 585
16:25:01 1 A Yes.
16:25:02 2 Q Now, wait a minute. You're six. That's
16:25:04 3 different. That's C-IR. I wanted PX-HW. That's all the
16:25:09 4 way towards the front of the document.
16:25:10 5 A Here we go. Yes.
16:25:21 6 Q Okay. Now, this appears to be an email that
16:25:23 7 you sent to Kim Silva, Mr. McGuire's paralegal, correct?
16:25:28 8 A That's correct.
16:25:29 9 Q When I look at it, it says, "Oops. Sorry.
16:25:32 10 Here another try." And it appears that you had tried to
16:25:35 11 email a document to Ms. Silva and you weren't successful
16:25:39 12 the first time you did it; is that correct?
16:25:41 13 A Well, I forgot to attach it.
16:25:43 14 Q Sure. Well, what I'm trying to figure out,
16:25:45 15 because I couldn't tell from this document, is what was
16:25:48 16 the document that you tried to attach to this email?
16:25:51 17 A That was the WHO report.
16:25:54 18 Q All right. Let's turn to page 9, a couple of
16:26:13 19 pages later. And it's PX-HW-9. I leave all those zeros
16:26:19 20 out, because I don't think they add much. This is --
16:26:25 21 could you describe for the record what this is, please.
16:26:27 22 A Yes. This is a transmittal letter by
16:26:32 23 Mr. McGuire in which he sent me data on the Philip Morris
16:26:38 24 rat studies.
16:26:38 25 Q Okay.
16:26:40 26 A Apparently material produced by Dr. Carchman.
16:26:44 27 Q Have you had an opportunity to review those
16:26:47 28 documents?
Vail, Christians & Associates (619)544-8344 586
16:26:47 1 A Yes.
16:26:47 2 Q What conclusions have you reached based on
16:26:50 3 your review of those documents?
16:26:53 4 A These are very well done studies on the
16:27:00 5 effects of what they call room-aged sidestream smoke in
16:27:08 6 the respiratory tract of rats.
16:27:11 7 Q Did you reach any other conclusions?
16:27:19 8 A Not unless you ask me specifically in regard
16:27:33 9 to what.
16:27:34 10 Q Well, anything with respect to these
16:27:37 11 documents, if that's something that you can answer. Any
16:27:39 12 other conclusions that you might have reached in reviewing
16:27:42 13 these documents that Dr. Carchman had provided previously
16:27:46 14 and which Mr. McGuire provided to you?
16:27:50 15 A Yes. Those studies addressed potential
16:27:54 16 respiratory side effects. They do not address
16:27:58 17 carcinogenicity.
16:27:59 18 Q Okay. Are there any other conclusions that
16:28:01 19 you drew based on your review of those documents?
16:28:04 20 A Those are the main conclusions.
16:28:07 21 Q Okay. The copy of those documents was not
16:28:13 22 attached to Mr. McGuire's letter, for the obvious reason
16:28:17 23 that we already had copies of them.
16:28:19 24 But there is a question that I'd like to ask
16:28:22 25 you about the first of those two documents, which was
16:28:26 26 entitled, "Biological Activity of Fresh and Room-Aged
16:28:30 27 Sidestream Smoke of the Standard Reference Cigarette 2R1."
16:28:35 28 And specifically -- and I don't think we need to mark
Vail, Christians & Associates (619)544-8344 587
16:28:37 1 this. But I'm happy to do it if you'd like to. There's a

16:28:42 2 reference on page 8 of the report. It says, "study
16:28:46 3 director statement." And it says, "The study director
16:28:50 4 acknowledges responsibility for the validity of the study
16:28:53 5 and confirms that it was conducted in accordance with the
16:28:56 6 OECD principles of good laboratory practice, GLP, of
16:29:01 7 Belgium and Germany."
16:29:02 8 Are you familiar with the good laboratory
16:29:05 9 practices of Belgium and Germany?
16:29:08 10 A No. But I know what GLP generally means.
16:29:13 11 Q What does it generally mean?
16:29:18 12 A It means that in a bioassay, carcinogenic or
16:29:25 13 not, you can document the validity of everything single
16:29:34 14 data point you collected. GLPs are regulations that, for
16:29:43 15 example, if you weigh animals, you do not only have hard
16:29:51 16 copies of the weights you take from the animals, but you
16:29:54 17 also have to prove evidence that every so often you
16:29:58 18 calibrated your balance, and so on.
16:30:01 19 In other words, GLP assure that when at the
16:30:07 20 end, let's say, of a carcinogenesis study, you look at the
16:30:12 21 slide, you can literally follow where from this thing came
16:30:17 22 back to the beginning of the experiment.
16:30:19 23 I think in -- I have this from TV. But I
16:30:25 24 think the best analogy I have is you have to assure that
16:30:32 25 the chain of evidence is documented.
16:30:38 26 Q Okay.
16:30:38 27 A At every single step of the experiment.
16:30:41 28 Q Is there anything else to GLPs, other than
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16:30:45 1 chain of custody --
16:30:48 2 A Chain of evidence.
16:30:48 3 Q -- or calibration of instruments during your
16:30:50 4 test?
16:30:50 5 A Oh, yes. There are hundreds of things. Like
16:30:57 6 you should not take notes in pencil and so on.
16:31:02 7 Q Okay. Is it a good thing for a study to
16:31:07 8 comply with GLP?
16:31:09 9 A Yes.
16:31:09 10 Q Should all studies comply with GLP?
16:31:13 11 MR. McGUIRE: No foundation, overbroad.
16:31:15 12 You can answer.
16:31:16 13 BY MR. CAFFERTY:
16:31:16 14 Q Let me rephrase it. Should all animal
16:31:20 15 experiments comply with GLP?
16:31:22 16 A No.
16:31:22 17 Q Under what circumstances would an animal
16:31:25 18 study not comply with GLP?
16:31:29 19 A Research.
16:31:29 20 Q I'm sorry?
16:31:30 21 A If one is doing research.
16:31:32 22 Q By the way, did your animal studies comply
16:31:36 23 with GLP?
16:31:37 24 A No.
16:31:38 25 Q Why not?
16:31:40 26 A Because I can't afford it.
16:31:42 27 Q In what ways did you not comply with GLP?
16:31:46 28 A In many ways.
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16:31:49 1 Q Tell me some of the ways. Tell me the ways
16:31:52 2 in which you did not comply?
16:31:54 3 A I don't think we have the records that we
16:31:55 4 calibrated the balances on which we weighed the animals.
16:32:00 5 I don't think we always used only bound notebooks.
16:32:06 6 I do not, when I get feed, which I purchase

16:32:13 7 commercially, analyze it myself.
16:32:17 8 Q Are there any other ways in which your study
16:32:22 9 did not meet GLP?
16:32:24 10 MR. McGUIRE: Did you ever use a pencil?
16:32:27 11 Hmm?
16:32:28 12 THE WITNESS: I don't recall.
16:32:30 13 BY MR. CAFFERTY:
16:32:30 14 Q Okay. Those are the ones that you recall, as
16:32:32 15 you sit here?
16:32:33 16 A These are just a few examples I can give you
16:32:36 17 offhand.
16:32:36 18 Now, I can comment on the difference between
16:32:41 19 a study which has been done under GLP, and research.
16:32:45 20 Q Sure. Why don't you do that, please.
16:32:48 21 A In order to be acceptable for a regulatory
16:32:54 22 agency as being taken valid, let's say the FDA, the study
16:33:01 23 has to be done under GLP because if it's negative, one has
16:33:08 24 to have the utmost confidence that everything was done
16:33:12 25 right.
16:33:12 26 The same principle does not apply to
16:33:16 27 research. The only principle that applies to research is
16:33:20 28 can somebody else reproduce what we have done.
Vail, Christians & Associates (619)544-8344 590
16:33:23 1 Q Would it be fair to say then that,
16:33:29 2 conversely, when research is being done, you don't have to
16:33:32 3 have the utmost confidence that it's been done right?
16:33:35 4 A Yes, you do. But not on paper.
16:33:37 5 Q Well, how do you get that confidence if GLPs
16:33:47 6 haven't been followed?
16:33:47 7 MR. McGUIRE: Asked and answered.
16:33:48 8 Have it reproduced by somebody else.
16:33:52 9 MR. CAFFERTY: Well, Mr. McGuire, I think
16:33:55 10 Dr. Witschi is supposed to testify, and your coaching is
16:33:59 11 obviously helpful to him. But we'd like to have his
16:34:02 12 testimony.
16:34:02 13 THE WITNESS: I said it before.
16:34:05 14 MR. McGUIRE: That's exactly right.
16:34:06 15 And your question is cumulative.
16:34:08 16 THE WITNESS: I tell my students -- I tell my
16:34:12 17 students about research. There are three possibilities.
16:34:15 18 One of them, somebody can reproduce what you did in the
16:34:18 19 lab. Preferably on a different site. Then you have made
16:34:24 20 it.
16:34:24 21 The second possibility is people try and
16:34:28 22 cannot reproduce it. Then you have a problem.
16:34:32 23 And the third possibility is nobody bothers
16:34:36 24 trying to reproduce what you've done. Then so what.
16:34:39 25 BY MR. CAFFERTY:
16:34:39 26 Q Okay. Let me direct your attention a couple
16:35:01 27 of pages back now to PX-HW-12. Do you have that in front
16:35:11 28 of you?
Vail, Christians & Associates (619)544-8344 591
16:35:12 1 A Yes.
16:35:12 2 Q And can you identify that for the record.
16:35:16 3 A This is again a transmittal letter dated June
16:35:19 4 13 in which I was sent a copy of the Philip Morris report
16:35:25 5 ETS Exposure & Lung Cancer Scientific Evidence" and the
16:35:31 6 deposition of Dr. Joad.
16:35:33 7 Q Okay. And this was provided by Mr. McGuire
16:35:36 8 again to you, correct?
16:35:37 9 A That's correct.
16:35:37 10 Q Now, prior to Mr. McGuire providing this
16:35:41 11 Philip Morris report entitled, "ETS Exposure & Lung Cancer

16:35:46 12 Scientific Evidence - 1998," had you ever seen that
16:35:50 13 document before? The first page of it is included in
16:35:57 14 Exhibit 549, and I believe you have that in front of you;
16:35:59 15 is that right?

16:35:59 16 A I never have seen that one before.

16:36:02 17 Q Never saw it before until Mr. McGuire
16:36:04 18 provided it to you?

16:36:05 19 A That's right.

16:36:05 20 Q Now, since Mr. McGuire provided it to you,
16:36:08 21 have you had an opportunity to review it?

16:36:09 22 A I looked at it.

16:36:10 23 Q You looked at it? Have you reviewed it?

16:36:13 24 MR. McGUIRE: Well, if reviewed means
16:36:15 25 something different than looked, would you explain to him
16:36:18 26 that?

16:36:18 27 THE WITNESS: Yes.

16:36:19 28 MR. McGUIRE: Otherwise -- okay.

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16:36:20 1 THE WITNESS: Looking at it, I looked at the
16:36:23 2 information what's in there. This is not a scientific
16:36:26 3 paper. This is a slide show. And you cannot really
16:36:32 4 review, in the sense I understand something reviewing, a
16:36:36 5 slide show because in case you have a question about
16:36:41 6 something, there's nothing to fall back to.

16:36:43 7 BY MR. CAFFERTY:

16:36:43 8 Q Okay. Do you have any understanding as to
16:36:47 9 what the purpose of this, as you term it, slide show was?

16:36:50 10 A I have an educated guess what this was.

16:36:55 11 Q What is your -- what is your best information
16:36:58 12 on that?

16:36:59 13 MR. McGUIRE: Calls for speculation.

16:37:01 14 THE WITNESS: This was --

16:37:01 15 MR. McGUIRE: You can answer. He asked for
16:37:03 16 it.

16:37:04 17 THE WITNESS: I don't know where from I have
16:37:05 18 that one, but I thought this was the slide show of
16:37:09 19 somebody who presented ETS to the Committee on Tobacco and
16:37:12 20 Health.

16:37:15 21 BY MR. CAFFERTY:

16:37:15 22 Q And the Committee on Tobacco and Health is
16:37:21 23 the -- is the committee that resulted in the SCOTH report
16:37:26 24 that we've been talking about, or is it some other
16:37:29 25 committee?

16:37:29 26 A I know from reading the SCOTH report that
16:37:32 27 this particular committee had a report prepared by the
16:37:39 28 tobacco manufacturers on the issue of ETS, and my

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16:37:46 1 speculation was that when this report was given to the
16:37:54 2 committee, somebody also gave a presentation what's in the
16:37:59 3 report and that those were the slides from this
16:38:02 4 presentation.

16:38:02 5 Q Okay. But that's your speculation? That's
16:38:05 6 not something that you really have any knowledge of,
16:38:08 7 correct?

16:38:08 8 A That's my speculation, yes.

16:38:09 9 Q Now, based on your looking at this report
16:38:15 10 entitled, "ETS Exposure & Lung Cancer Scientific Evidence
16:38:19 11 - 1998," did you see anything in that report that you
16:38:24 12 found to be inaccurate?

16:38:27 13 MR. McGUIRE: No foundation.

16:38:30 14 THE WITNESS: I don't recall.

16:38:30 15 BY MR. CAFFERTY:

16:38:30 16 Q You don't recall having seen anything that

16:38:36 17 was inaccurate?
16:38:37 18 A That's correct.
16:38:38 19 Q Okay. What role, if any, does the report
16:38:47 20 entitled "ETS Exposure & Lung Cancer Scientific Evidence -
16:38:52 21 1998" have as a basis for your opinions?
16:38:59 22 A I can't have any opinion based on a slide
16:39:02 23 show.
16:39:02 24 Q Do you intend to offer any testimony at trial
16:39:07 25 regarding this report?
16:39:07 26 A No.
16:39:13 27 MR. McGUIRE: Formally, no. But now that
16:39:17 28 we've brought it up, you may. You may not have intended
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16:39:23 1 it, but it's now opened up.
16:39:25 2 MR. CAFFERTY: Well, obviously, you had
16:39:27 3 provided it to him. So it's in his file.
16:39:30 4 MR. McGUIRE: That's why I asked you to lay a
16:39:32 5 foundation as to whether he had any opinions, it made any
16:39:35 6 difference. You now asked him whether or not these are
16:39:37 7 accurate or not. All those things are going to have to be
16:39:40 8 gone into.
16:39:41 9 BY MR. CAFFERTY:
16:39:42 10 Q All right. Let me direct your attention,
16:39:45 11 Dr. Witschi, to page PX-HW-13 of Exhibit 549. Do you have
16:39:55 12 that in front of you?
16:39:57 13 A Yes.
16:39:57 14 Q And can you describe briefly what that page
16:40:04 15 is all about?
16:40:05 16 A This was -- I received a document entitled
16:40:08 17 protective order governing the use and dissemination of
16:40:12 18 certain information, documents, and materials produced by
16:40:16 19 certain parties. I was interested in the second paragraph
16:40:27 20 which said it is not necessary for you to review this
16:40:31 21 document at this time. And the third one is -- I
16:40:33 22 certainly would agree with the third paragraph which says
16:40:36 23 that so far I have not received any confidential or highly
16:40:40 24 confidential information.
16:40:41 25 Q I have a --
16:40:42 26 A So I'll cross that bridge when I've burned it.
16:40:45 27 Q Okay. I have a simple question for you.
16:40:47 28 A Yes.
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16:40:47 1 Q Since receiving this document, have you seen
16:40:49 2 any or been provided with any confidential documents by
16:40:53 3 Mr. McGuire?
16:40:53 4 A No.
16:40:54 5 Q Okay. Would it be fair to say, then, that
16:40:56 6 you have not executed any document under the protective
16:40:59 7 order as of this date?
16:41:01 8 A Yes.
16:41:01 9 Q Okay. Let me direct your attention to page
16:41:33 10 PX-HW-19 of Exhibit 549. Do you have that before you?
16:41:49 11 A Yes.
16:41:49 12 Q Okay. This is an email from Jennifer Kries.
16:41:55 13 I don't know if I'm pronouncing that correctly. To you.
16:41:58 14 And it says, "Attached is a RASS report." Have you seen
16:42:01 15 this document and the attachment to it before?
16:42:03 16 A I've seen the document, yes.
16:42:04 17 Q What is your understanding as to what this
16:42:08 18 RASS report is?
16:42:09 19 A This is a list provided, and I would assume
16:42:13 20 it was by Philip Morris, on all the available evidence
16:42:17 21 which deals with the experiments we were talking about

16:42:21 22 exposure of rats to room-aged sidestream smoke, and the
16:42:27 23 list was not very helpful because it included
16:42:31 24 presentations, oral presentations, slide shows, and a few
16:42:35 25 papers.
16:42:35 26 Q Have you reviewed any of the documents that
16:42:41 27 are included in the attachment that's called the RASS
16:42:45 28 report which actually appears on pages 20 and 21 of
Vail, Christians & Associates (619)544-8344 596
16:42:48 1 Exhibit 549?
16:42:50 2 A I did not check off the material that was
16:42:53 3 sent against this particular document.
16:42:55 4 Q So is the answer you don't know one way or
16:42:57 5 the other whether you did or you didn't?
16:42:59 6 A I don't know. Yes.
16:43:00 7 Q Okay. Okay. Let me direct your attention to
16:43:17 8 Exhibit 550, which is the second group of documents that
16:43:23 9 Mr. McGuire had provided to us in advance of the
16:43:25 10 deposition.
16:43:25 11 Okay. And let me direct your attention in
16:43:57 12 that document to page PX-HW-31.
16:44:11 13 A Yes.
16:44:11 14 Q Do you have that in front of you? Could you
16:44:14 15 identify for the record what that is?
16:44:16 16 A This is an email I sent to Dr. Bogen on
16:44:22 17 June 1st, 1999.
16:44:23 18 Q Okay. Now, I see at the top, there is a
16:44:28 19 legend that says from Hanspeter Witschi to TBMP.SDTBMP.
16:44:35 20 Do you see that?
16:44:36 21 A Yes.
16:44:36 22 Q Okay. And the date on that is 6/22 at 3:40
16:44:43 23 p.m., and it says, "Subject to your questions." What does
16:44:45 24 that all mean?
16:44:48 25 A This was -- I got the phone call from Kim
16:44:53 26 Silva out of Mr. McGuire's office, whether I would --
16:44:57 27 couldn't forward all the email I had in my files to
16:45:03 28 Mr. McGuire, the emails relevant to this case.
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16:45:11 1 Q All right. So you had those emails stored in
16:45:14 2 your computer somewhere?
16:45:15 3 A Yes.
16:45:16 4 Q And what you did is you retrieved them from
16:45:18 5 the storage in your computer and then sent them on to --
16:45:22 6 who is it? Ms. --
16:45:25 7 A Kim Silva.
16:45:27 8 Q Kim Silva. To Ms. Silva?
16:45:29 9 A Yes.
16:45:29 10 Q And did you do that for all of the emails
16:45:31 11 that you had in your computer regarding this case?
16:45:33 12 A I had them in two computers.
16:45:35 13 Q Two computers. Did you --
16:45:36 14 A Yes.
16:45:37 15 MR. McGUIRE: Thanks.
16:45:39 16 BY MR. CAFFERTY:
16:45:39 17 Q Did you have them in any computers other than
16:45:41 18 those two computers?
16:45:41 19 A No.
16:45:42 20 Q And did you retrieve all of the email
16:45:44 21 messages regarding this case from both of those computers?
16:45:47 22 A Yes.
16:45:47 23 Q Okay. Now, in looking at this, at the
16:45:50 24 bottom, I see the statement that says, "Yes, I read
16:45:53 25 'Runaway Jury' with great pleasure." Is that something
16:45:57 26 that you wrote?

16:45:59 27 A Yes.

16:46:16 28 Q Okay. What did you mean by that?
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16:46:18 1 A I think Dr. Bogen asked me whether I had read
16:46:24 2 that book. And that's my answer to it.

16:46:30 3 Q What does it mean "with great pleasure"?
16:46:34 4 A It was a -- it's a -- what is he called?
16:46:38 5 John Grisham? It was one of those books you just keep on
16:46:44 6 reading.

16:46:44 7 Q What was it that you liked about it?
16:46:48 8 A I think some of it, it says, I was kind of
16:46:55 9 fascinated about this plot, from both sides, how you
16:47:00 10 manipulate the jury, and how the people involved, in this
16:47:04 11 case, the tobacco industry, would be affected by that.

16:47:13 12 Q The next sentence says, "If you want to know
16:47:15 13 what really went on and goes on in the world of
16:47:18 14 tobacco" -- and I guess goes is a typo. That should have
16:47:20 15 been goes, right?

16:47:21 16 A That should be goes, yes.
16:47:23 17 Q And goes on in the world of tobacco. And
16:47:26 18 then it says the. I think that should be then, right?

16:47:30 19 A Yes.
16:47:30 20 Q T-h-e-n. "You should read Richard Kluger,
16:47:34 21 'Ashes to Ashes.' What is that book about?

16:47:36 22 A That gives you a history about the history
16:47:41 23 of tobacco, particularly in this country, beginning around
16:47:45 24 1850, 1860, when the first cigarette machines were
16:47:52 25 developed.

16:47:54 26 Q Okay. And what is your understanding as to
16:47:56 27 what really went and goes on in the world of tobacco?

16:48:02 28 A As the last years really have shown, the
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16:48:13 1 industry was not always straightforward with what they
16:48:19 2 knew, and certainly there has been a big change in the
16:48:25 3 last few years. But I still remember the times when the
16:48:29 4 industry refused to acknowledge that tobacco, for example,
16:48:34 5 causes lung cancer.

16:48:37 6 Q Is there anything else that you meant when
16:48:39 7 you wrote if you want to know what really went and goes on
16:48:43 8 in the world of tobacco, other than what you just said?

16:48:45 9 A The book documents very well certain events
16:48:55 10 which happened in this sense that, really, the public was
16:49:03 11 not informed and that the industry was less than
16:49:09 12 forthcoming in what J.R. (sic) Reynolds now has on its
16:49:24 13 current web page, acknowledging there might be a problem
16:49:35 14 and all those kind of things.

16:49:37 15 Q Dr. Witschi, do you believe that cigarette
16:49:40 16 smoking should be banned in California?

16:49:43 17 MR. McGUIRE: He was asked that in his first
16:49:45 18 deposition.

16:49:45 19 But you can answer again, if you have an
16:49:47 20 opinion or belief.

16:49:51 21 THE WITNESS: I can't answer this with a
16:49:55 22 "yes" or "no." I would have to elaborate.

16:49:59 23 BY MR. CAFFERTY:

16:49:59 24 Q Could you elaborate, please.
16:50:01 25 A This country had a bad experience with
16:50:15 26 prohibition, and, actually, during prohibition, liquor
16:50:26 27 sales boomed.

16:50:28 28 Now, if we were going to ban tobacco, the
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16:50:34 1 same thing might happen. There is something more to it.
16:50:40 2 If during prohibition liquor manufacturers outside of this

16:50:50 3 country or even worldwide would have not made available
16:50:54 4 the product, we would not have had the problems.
16:50:58 5 Now, whether the manufacturing of tobacco and
16:51:03 6 tobacco products could be halted worldwide, I couldn't
16:51:08 7 answer that question because even in this country, because
16:51:15 8 the economy might break down.
16:51:17 9 So this is really a problem which has so many
16:51:31 10 faces. On the other hand, from a toxicologist standpoint,
16:51:37 11 we are very sick, and all you have to do is read every
16:51:41 12 day's newspaper, about the carcinogens around us.
16:51:44 13 And there's really only one carcinogen if you
16:51:48 14 choose so, we could totally eliminate from our
16:51:52 15 environment, and that's tobacco. So it's a rather complex
16:52:01 16 question.
16:52:02 17 MR. McGUIRE: I move to strike. No
16:52:06 18 foundation.
16:52:06 19 BY MR. CAFFERTY:
16:52:06 20 Q Dr. Witschi, let me direct your attention to
16:52:13 21 page 36. PX-HW-36 of Exhibit 550. Do you have that in
16:52:26 22 front of you?
16:52:26 23 A Yes.
16:52:26 24 Q Could you describe for the record what that
16:52:30 25 is as well?
16:52:30 26 A This is an email exchange between me and
16:52:33 27 Dr. Gio Gori.
16:52:35 28 Q Dr. Gio Gori, G-i-o?
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16:52:37 1 A Gio, yes.
16:52:38 2 Q All right. Now --
16:52:40 3 A Actually, the correct pronunciation is Jo,
16:52:44 4 because he comes from Jovanni, I guess.
16:52:47 5 Q Okay. So we'll call him Dr. Gio.
16:52:49 6 A Yeah.
16:52:50 7 Q So this email exchange between you and
16:52:53 8 Dr. Gori, it appears to me that you initiated this email
16:52:56 9 exchange; is that correct?
16:52:58 10 A Yes.
16:52:58 11 Q Okay. And when you look at the original
16:53:05 12 email dated Wednesday, June 2nd, 1999, which is at the
16:53:09 13 bottom of the page -- do you have that in front of you?
16:53:11 14 A Yes.
16:53:12 15 Q It appears that you are contacting Dr. Gori
16:53:14 16 to ask him for a copy of a book that he had published on
16:53:19 17 ETS?
16:53:19 18 A Yes.
16:53:19 19 Q Is that correct?
16:53:20 20 A That's correct.
16:53:22 21 Q Why were you asking him for that book?
16:53:25 22 A I talked to my project officer at NIHS, who
16:53:32 23 is interested in my work. And he asked me, he knew there
16:53:45 24 was a controversy about ETS. And he asked me whether I
16:53:49 25 had seen the book written by Dr. Gori. And I said no.
16:53:56 26 And then he told me you might want to read it. And that's
16:54:04 27 why I wrote, sent the email message to Dr. Gori, could he
16:54:08 28 give me the title or the ISBN number of the book so I
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16:54:14 1 could go and buy it. And then he sent it to me.
16:54:18 2 Q Dr. Gori did send you the book?
16:54:20 3 A Yes.
16:54:20 4 Q That's what I couldn't tell from the email.
16:54:22 5 A No. I got the book, and I read it.
16:54:25 6 Q Okay. And when did he send it to you?
16:54:27 7 A A few days after this message.

16:54:28 8 Q When did you read it?
16:54:32 9 A A few days after it arrived.
16:54:34 10 Q Did you tell Dr. Gori at that time that you
16:54:36 11 were working for plaintiffs in this case?
16:54:42 12 A I was --
16:54:42 13 MR. McGUIRE: He may not have been working
16:54:49 14 for plaintiffs in this case since the email is dated
16:54:52 15 January '99.
16:54:53 16 MR. CAFFERTY: No. It's dated June 2nd, '99.
16:54:56 17 MR. McGUIRE: Same thing. He may not have
16:54:58 18 been working at that point in time. I don't know.
16:55:00 19 Obviously, it was a year before I ever got involved.
16:55:02 20 The question is did you tell him you were
16:55:05 21 working for the plaintiffs in this case?
16:55:07 22 THE WITNESS: No.
16:55:12 23 BY MR. CAFFERTY:
16:55:12 24 Q What conclusions did you reach based on your
16:55:15 25 review of Dr. Gori's book?
16:55:17 26 MR. McGUIRE: No foundation that he reached
16:55:19 27 any conclusions.
16:55:23 28 THE WITNESS: There was nothing new in there.
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16:55:26 1 MR. McGUIRE: Nothing new. Okay.
16:55:29 2 THE WITNESS: It reflected the position
16:55:32 3 Dr. Gori had from the beginning, since 1992. It was just
16:55:40 4 put together in book form. But what he said in there, he
16:55:45 5 said several times, in several papers I read before. And
16:55:55 6 I've even heard him talking about this on two occasions.
16:55:58 7 The one was when I organized the symposium in 1994, '95,
16:56:04 8 where he gave a talk, and then in the presentations he
16:56:07 9 gave to OEHA.
16:56:11 10 BY MR. CAFFERTY:
16:56:11 11 Q Okay. Let me direct your attention to
16:56:16 12 another part of Exhibit 550. It's page PX-HW-50.
16:56:38 13 A Yes.
16:56:38 14 Q Could you identify for the record what that
16:56:43 15 is.
16:56:43 16 A This is an email message I got from Dr. Bogen
16:56:50 17 in which he asked me whether I had any idea how much of
16:56:53 18 the particles the mice retained in their lungs.
16:56:59 19 Q Did you respond to this email?
16:57:03 20 A Yes.
16:57:03 21 Q How did you respond to it?
16:57:05 22 A I do not know.
16:57:06 23 Q What did you tell him in response to this
16:57:11 24 email?
16:57:12 25 A I told him that I did not know. I had never
16:57:16 26 made the appropriate measurements.
16:57:29 27 Q All right. Let me direct you to one other
16:57:32 28 portion, and that's page PX-HW-99, which is almost at the
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16:57:41 1 end of this document but not quite. This may be a
16:58:03 2 document similar to the one -- do you have it in front of
16:58:07 3 you yet?
16:58:08 4 A Yes.
16:58:08 5 Q Okay. And can you identify what that is for
16:58:10 6 the record, please.
16:58:10 7 A This is an exchange I had with Kim Silva
16:58:14 8 where I sent to her a message that I was going to attach
16:58:17 9 the WHO report and forgot to click on the corresponding
16:58:22 10 button.
16:58:22 11 Q All right. So this is the same --
16:58:23 12 A This is the same.

16:58:25 13 Q -- it's part of the series of messages --
16:58:27 14 A Yes.
16:58:28 15 Q -- that you traded with Ms. Silva regarding
16:58:31 16 the WHO report?
16:58:32 17 A Yes.
16:58:32 18 Q Okay. So what would have been attached to
16:58:35 19 this is the WHO report?
16:58:36 20 A Yes.
16:58:36 21 Q All right. Now, in -- going back to
16:58:45 22 Exhibit 549, Mr. McGuire's letter to me, which is the
16:58:52 23 first page of Exhibit 549, indicates that he provided you
16:59:06 24 with certain experts from Dr. Carchman's deposition. Do
16:59:08 25 you see that, Item No. 10?
16:59:13 26 A Yes.
16:59:13 27 Q Did you in fact receive those excerpts from
16:59:16 28 Dr. Carchman's deposition?
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16:59:17 1 A Yes.
16:59:17 2 Q Did Mr. McGuire tell you why he was providing
16:59:21 3 you with those specific excerpts?
16:59:24 4 A This was so I knew what Mr. Carchman --
16:59:29 5 Dr. Carchman had said in his deposition with regard to my
16:59:34 6 work.
16:59:34 7 Q Did you review those excerpts from
16:59:38 8 Dr. Carchman's deposition?
16:59:40 9 A Yes.
16:59:40 10 Q And what conclusions, if any, did you draw
16:59:44 11 based on your review of those excerpts?
16:59:54 12 A That Dr. Carchman found my experiments with
16:59:59 13 ETS in the Strain A mice verbose, interesting, and
17:00:04 14 important.
17:00:04 15 Q Did you draw any other conclusions based on
17:00:09 16 your review of those excerpts?
17:00:12 17 A Yes.
17:00:27 18 Q What other conclusions did you draw?
17:00:29 19 A If some of the things -- some of the
17:00:34 20 conclusions or hypotheses he derived from my work, why
17:00:41 21 didn't he -- or whomever he advised, take up on this and
17:00:47 22 do the appropriate experiments.
17:00:49 23 Q What are the conclusions and hypotheses that
17:00:54 24 you're referring to?
17:00:56 25 A The most striking one in Dr. Carchman's
17:01:10 26 deposition was really that one particular study of mine
17:01:17 27 would question quite a few things that had been taken for
17:01:25 28 granted because it essentially put forward new
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17:01:29 1 hypotheses. This paper came out in 1997, and, yet, to the
17:01:37 2 best of my knowledge, nobody has challenged this
17:01:42 3 hypothesis yet. And I was wondering if it's important,
17:01:47 4 why not test it.
17:01:48 5 Q Which study are you referring to?
17:01:51 6 A The one with the filtered smoke.
17:01:54 7 Q And what was it that Dr. Carchman was
17:01:57 8 challenging about your 1997 study regarding filtered
17:02:02 9 smoke?
17:02:02 10 MR. MCGUIRE: I don't think he testified he
17:02:03 11 was challenging it.
17:02:05 12 THE WITNESS: No.
17:02:05 13 MR. MCGUIRE: He was lauding it.
17:02:10 14 THE WITNESS: Dr. Carchman essentially said
17:02:13 15 that, if true, if my findings were true, they would
17:02:21 16 challenge much of the work and the assumptions the tobacco
17:02:26 17 industry had worked under and done. And my question was

17:02:31 18 since this paper was published in 1997, there would have
 17:02:35 19 been ample time to verify those experiments by people who
 17:02:43 20 are interested in those results. And, yet, nothing
 17:02:46 21 happened.

17:02:47 22 The second thing was Dr. Carchman also pulled
 17:03:02 23 up one interesting hypothesis. And this is essentially if
 17:03:06 24 the animals are coming out of smoke, they gain weight or
 17:03:11 25 resume normal weight, and that's why they develop lung
 17:03:16 26 tumors.

17:03:17 27 It's an interesting hypothesis. It's
 17:03:19 28 testable, and since this paper came out, the first of my
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17:03:24 1 paper came out, an experiment which would test this
 17:03:28 2 hypothesis could have been done already several times,
 17:03:31 3 because these are ten-month experiments. And, yet, again,
 17:03:35 4 nothing was done.

17:03:41 5 BY MR. CAFFERTY:
 17:03:43 6 Q Do you know if anyone has such studies under
 17:03:47 7 way?
 17:03:47 8 A I know there are some plans, but they have
 17:03:54 9 not undertaken yet.

17:03:57 10 Q Who has plans to do those studies?
 17:04:00 11 A The people in Cologne.
 17:04:03 12 Q Who are the people in Cologne?
 17:04:05 13 A The people who work in INBIFO.
 17:04:08 14 Q So it would be Philip Morris has plans?
 17:04:11 15 A Philip Morris, yes.
 17:04:12 16 Q What do you know about those plans?
 17:04:15 17 A They -- to the best of my knowledge, they
 17:04:17 18 want to study A mice and ETS. And I also know they want
 17:04:25 19 to do some experiments along the lines with the weight
 17:04:30 20 loss.

17:04:31 21 Q And how do you know that they want to do that?
 17:04:33 22 A I talked to them.
 17:04:34 23 Q When did you talk to them?
 17:04:36 24 A Last September.
 17:04:37 25 Q Where did you talk to them?
 17:04:38 26 A Pardon me?
 17:04:39 27 Q Where did you talk to them?
 17:04:41 28 A In Cologne.

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17:04:46 1 Q What did they tell you at that time?
 17:04:47 2 A That they were planning on those
 17:04:50 3 experiments. They asked me for their (sic) advice how to
 17:04:53 4 do them, that they had some constraints with the German
 17:04:57 5 authorities. It was very difficult to do animal studies
 17:05:02 6 on tobacco smoke. That's what they told me.

17:05:07 7 Q Okay. And what did they tell you about their
 17:05:10 8 actual plans to do such a study?
 17:05:13 9 A I wouldn't know how much this really is
 17:05:17 10 advanced. I think from a scientific standpoint, they
 17:05:25 11 really would be interested in taking up some of my
 17:05:30 12 experiments and testing hypotheses and maybe developing
 17:05:34 13 further. However, I do not know, given the regulations in
 17:05:42 14 Germany, on one side, and, frankly, the policies of Philip
 17:05:46 15 Morris in general, on the other hand, how this is going to
 17:05:50 16 develop.

17:05:51 17 Q So you knew about this plan last September,
 17:05:56 18 almost a year ago?
 17:05:57 19 A Yes.
 17:05:57 20 Q Okay. Have you formulated any plans to test
 17:06:00 21 the hypothesis about weight gain?
 17:06:02 22 A No.

17:06:03 23 Q Do you intend to test that hypothesis?
17:06:06 24 A No. Because I do not think it's a very
17:06:13 25 viable hypothesis. I have to make choices.
17:06:16 26 Q Why do you think it's not a viable hypothesis?
17:06:18 27 MR. KODSI: I think he said valuable. Did
17:06:23 28 you say viable?
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17:06:25 1 THE WITNESS: Viable. Viable.
17:06:26 2 MR. KODSI: Okay. I'm sorry.
17:06:32 3 THE WITNESS: I have to make choices in what
17:06:33 4 I'm doing in my experiments. And among my priorities,
17:06:42 5 this is at the bottom, towards the bottom of the list.
17:06:45 6 BY MR. CAFFERTY:
17:06:45 7 Q So you don't have any plans to do a study to
17:06:48 8 test the weight gain hypothesis?
17:06:50 9 A No.
17:06:50 10 Q Do you have any plans to do a study to try to
17:06:53 11 replicate your 1997 study regarding filtered air?
17:06:58 12 A You mean filtered smoke?
17:07:00 13 Q Filtered smoke. Excuse me.
17:07:02 14 A This would be number two on my priority list,
17:07:05 15 yes.
17:07:05 16 Q When are you going to do that?
17:07:07 17 A I don't know.
17:07:07 18 Q What's number one on your priority list?
17:07:11 19 A Finishing my work on the chemoprevention.
17:07:13 20 Q Okay. So when do you think you're going to
17:07:16 21 try to reproduce your 1997 study regarding filtered air?
17:07:19 22 A I don't know.
17:07:22 23 Q Okay. Would you agree, Dr. Witschi, that the
17:07:29 24 opinion that particulate matter in tobacco smoke is the
17:07:36 25 causal agent of lung cancer is a view that's held by the
17:07:40 26 public health authorities?
17:07:43 27 A Yes.
17:07:43 28 Q And it's been held by the public health
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17:07:45 1 authorities for many years, has it not?
17:07:47 2 A Yes.
17:07:47 3 Q So your work that postulates that it's the
17:07:52 4 vapor phase of tobacco smoke that causes lung cancer is at
17:07:57 5 odds with what the public health authorities have
17:07:59 6 concluded; is that correct?
17:08:00 7 A Yes. But it's not the first time this has
17:08:03 8 been shown.
17:08:04 9 Q Who else has shown it?
17:08:07 10 A This was in 1970.
17:08:10 11 Q Has anyone in the public health community
17:08:14 12 since 1970 ever adopted the view that it's the vapor
17:08:19 13 phase, not the particle phase that causes lung cancer?
17:08:23 14 A No.
17:08:23 15 Q Let me direct your attention back to
17:08:29 16 Exhibit 550. Oh. Wait a minute. One other thing.
17:08:32 17 We were talking about conclusions and
17:08:35 18 hypotheses. And that was two conclusions and hypotheses
17:08:39 19 that you identified in Dr. Carchman's testimony.
17:08:43 20 One was the filtered smoke, and the other
17:08:47 21 was the weight gain hypothesis. And are there any other
17:08:51 22 conclusions or hypotheses that you identified in Dr. -- in
17:08:55 23 the excerpts from Dr. Carchman's testimony?
17:08:58 24 A Not that I can think of right now.
17:09:00 25 Q By the way, in looking at those experts -- or
17:09:04 26 those excerpts, I'll represent to you that there's less
17:09:06 27 than 20 pages. Are you aware that Dr. Carchman's

17:09:10 28 transcript is more than 400 pages?
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17:09:12 1 A I'm not aware, but I'm not surprised.

17:09:14 2 Q Do you have any plans to review the entire
17:09:17 3 deposition transcript?

17:09:18 4 A If I would -- if it would be made available,
17:09:22 5 I would read it.

17:09:23 6 Q Let me direct your attention to another
17:09:26 7 document. It's PX-HW-47, and this is in Exhibit 547.

17:09:32 8 MR. McGUIRE: It's getting close to break
17:09:42 9 time here. Are you almost done for a break or --

17:09:44 10 THE WITNESS: Yeah. I can use one.

17:09:45 11 MR. CAFFERTY: Okay. Let's take a break, and
17:09:47 12 I just have a little bit more, Mickey.

17:09:50 13 VIDEOGRAPHER: We are off the record. The
17:09:52 14 time is 5:10.

17:09:53 15 (Recess.)

17:25:29 16 VIDEOGRAPHER: We are back on the record.
17:25:37 17 The time is 5:25.

17:25:39 18 BY MR. CAFFERTY:

17:25:39 19 Q Dr. Witschi, let me direct your attention to
17:25:43 20 this document that we're going to look at. It's PX-HW-47,
17:25:48 21 which is in Exhibit 550. I'm sorry. 550. The second
17:25:53 22 group of documents.

17:25:53 23 A What's the number?

17:25:58 24 Q 550 -- or 47. Just picking the last two
17:26:05 25 numbers.

17:26:05 26 A Yes.

17:26:07 27 Q Could you identify that for the record.

17:26:09 28 A This is a email sent from Roger Carrick to,
Vail, Christians & Associates (619)544-8344 612

17:26:29 1 among other people, myself.

17:26:31 2 Q So it's specifically directed to you,
17:26:34 3 correct?

17:26:35 4 A It's not specifically directed to me.

17:26:36 5 Q Well, you're one of the addressees --

17:26:38 6 A Yes.

17:26:38 7 Q -- listed in the to column? You're not just
17:26:41 8 a carbon copy recipient, correct?

17:26:43 9 A That's right.

17:26:44 10 Q Okay. And it's dated September 7th, 1999.
17:26:48 11 Do you see that?

17:26:48 12 A Yes.

17:26:49 13 Q Okay. Now, below that, there's a reference.
17:26:51 14 It says butt, b-u-t-t, busters. What's your understanding
17:26:56 15 as to what that means?

17:26:57 16 A That means probably that we were working very
17:27:04 17 hard.

17:27:04 18 Q Is that what your understanding is?

17:27:06 19 A That's what I understand.

17:27:07 20 Q Okay. Now, before you mentioned that -- I
17:27:11 21 believe you testified that you saw that there were some
17:27:13 22 problems in Philip Morris' RASS studies with respect to
17:27:19 23 their attempt to study carcinogenesis; is that correct?

17:27:24 24 A I wouldn't call this a problem. The study
17:27:28 25 designed would not allow you to come to any conclusions
17:27:31 26 about carcinogenicity. If this is a problem or not,
17:27:35 27 it's --

17:27:36 28 Q Okay. Now, that was the study we talked
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17:27:39 1 about before that was entitled, "Biological Activity of
17:27:43 2 Fresh and Room-aged Sidestream Smoke"?

17:27:46 3 A From what I understand, yes, this was a study

17:27:48 4 which eventually goes out to 24 years and looks at the
17:27:53 5 effects of sidestream smoke in the respiratory tract,
17:27:57 6 mostly. But from all I know, is this is not the
17:28:02 7 carcinogenicity study.

17:28:04 8 Q And how do you know that that's -- what's the
17:28:06 9 basis for your knowledge that it's not a carcinogenicity
17:28:10 10 study?

17:28:11 11 A From the information I have, and I do not
17:28:20 12 know whether this comes from talking to people at INBIFO
17:28:25 13 or whether it actually even was having seen part of the
17:28:29 14 study, the study does not contain enough animals, to go as
17:28:36 15 a carcinogenesis study.

17:28:38 16 Q Okay. And what's your understanding as to
17:28:40 17 how many animals are included in the study?

17:28:42 18 A Well, in a conventional carcinogenesis study,
17:28:49 19 there are 50 animals per sex, per species, per dose, which
17:29:02 20 comes out to a conventional NTP study for those levels
17:29:10 21 times 28, times 216, times 50. 800 animals.

17:29:19 22 Q And what's your understanding as to how many
17:29:21 23 animals are included in the long-term -- and I think you
17:29:25 24 said 24 years. But I think you meant 24 months.

17:29:27 25 A 24 months, yes.

17:29:28 26 Q -- 24-month study that Philip Morris is
17:29:32 27 performing?

17:29:32 28 A I wouldn't know. I would have to guess.
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17:29:34 1 Q How many animals did you use in your studies?

17:29:37 2 A 20 to 30 per group.

17:29:40 3 Q Okay. So you didn't use 60 of each sex and
17:29:47 4 each species per exposure level, did you?

17:29:50 5 A No.

17:29:56 6 Q Does that mean that your study is not an
17:29:58 7 adequate study of carcinogenicity?

17:30:01 8 A Absolutely not. It is an adequate study.

17:30:04 9 Q Okay. What's the difference between the
17:30:09 10 Philip Morris study and your study with respect to whether
17:30:13 11 or not you have to use 60 animals to make it a valid
17:30:17 12 carcinogenicity study?

17:30:21 13 A If Philip Morris study uses anything less
17:30:34 14 than what I just said, the 50 per sex, per group, three
17:30:41 15 dose levels, and so, comes up with negative data, they
17:30:44 16 would not be able to claim that this is a valid negative
17:30:49 17 study.

17:30:51 18 What's the difference to my study using fewer
17:30:55 19 animals? Not only for the data positive, but they
17:31:02 20 reproduce the positive in our lab, in somebody else's
17:31:05 21 lab. And if you have a positive response in repeat
17:31:13 22 experiments and in yet another lab, then I think the
17:31:18 23 evidence for the effect in this case, formation of lung
17:31:24 24 tumors by ETS, is conclusive.

17:31:28 25 MR. CAFFERTY: Okay. Those are all the
17:31:30 26 questions that I have.

17:31:31 27 MR. KODSI: I have some, and then we'll get
17:31:41 28 out of here.

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17:31:42 1 MR. McGUIRE: Well, I'm going to have some
17:31:44 2 questions. I don't have a lot, maybe. But I do have a
17:31:47 3 little clarification.

17:31:48 4 Go ahead.

17:31:50 5

17:31:50 6 FURTHER EXAMINATION

17:31:50 7 BY MR. KODSI:

17:31:50 8 Q Okay. Just to clarify the last answer that

17:32:01 9 you gave, is it your opinion that if a study produces
17:32:07 10 positive results, that it's okay for that study not to
17:32:14 11 follow proper protocol? I'm just not sure I understand
17:32:18 12 the answer.

17:32:19 13 A If a study produces reproducible positive
17:32:28 14 results in carcinogenesis, you do not have to follow the
17:32:33 15 NTP protocol, which is the default protocol.

17:32:38 16 Q And why is that?

17:32:41 17 A Because this evolved over the years, and it
17:32:52 18 really evolved out of the need that you can have
17:32:58 19 confidence in negative studies. And the NTP studies is
17:33:02 20 the best possible design to make a negative outcome
17:33:08 21 plausible.

17:33:10 22 If there was a carcinogen around which
17:33:15 23 produces a cancer in ten out of ten animals within three
17:33:18 24 months and somebody else would do exactly the same thing,
17:33:23 25 nobody would question this being a carcinogen.

17:33:25 26 But if somebody comes and says I tested ten
17:33:28 27 animals for three months and somebody else does the same
17:33:32 28 thing and they didn't find any tumors and they would come
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17:33:37 1 out with the conclusion this is not a carcinogen, they
17:33:40 2 would be laughed off their seat.

17:33:44 3 Q Is it your understanding that the NTP has
17:33:47 4 taken the position that positive studies do not need to
17:33:52 5 follow the NTP default protocol?

17:33:58 6 A They must have. Otherwise, they wouldn't
17:34:01 7 have acknowledged. I have not seen the document, as I
17:34:04 8 said. But from Dr. Coggins' paper, I can conclude that in
17:34:11 9 his background document, the NTP relied on my studies as
17:34:14 10 evidence of ETS being carcinogenic in mice, even if they
17:34:19 11 did not follow their protocol.

17:34:25 12 Q To your knowledge, did the NTP rely on your
17:34:28 13 studies as a piece of the pie, or did they rely on your
17:34:32 14 studies as conclusive evidence without having to look at
17:34:35 15 anything else?

17:34:35 16 MR. McGUIRE: Conclusive evidence of what?

17:34:37 17 BY MR. KODSI:

17:34:37 18 Q Of the carcinogenicity of tobacco smoke.

17:34:40 19 A I don't know. I haven't seen that document.

17:34:43 20 Q Okay. Let me -- I just want to go back to
17:34:49 21 one topic. You had made a statement while talking with
17:34:52 22 Mr. Cafferty about, to use your words, that the tobacco
17:34:55 23 industry has not always been straightforward and
17:34:57 24 forthcoming.

17:34:58 25 Do you have any firsthand knowledge about any
17:35:01 26 issue upon which you believe the tobacco industry has not
17:35:04 27 been straightforward or forthcoming?

17:35:07 28 A What do you mean by firsthand knowledge?
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17:35:10 1 Q Your own personal experience?

17:35:12 2 A Yeah. I think I once talked briefly to Carol
17:35:15 3 Henry, and there were some problems with the big mouse
17:35:21 4 study they did at Microbiology Associates, which if the
17:35:29 5 study had been left to go its course or with some
17:35:32 6 modifications, probably would have shown that tobacco
17:35:38 7 smoke, full smoke, produces lung tumors in mice. It would
17:35:42 8 have been -- there would have been better evidence. And
17:35:46 9 eventually, there was.

17:35:48 10 Q But your knowledge about that story is based
17:35:53 11 solely on what Dr. Henry told you, correct?

17:35:55 12 A And what I read in the book by Kluger.

17:36:00 13 Q So your knowledge about the Carol Henry story

17:36:03 14 is based solely on what Dr. Henry told you and what you've
17:36:06 15 read in a book?

17:36:07 16 A Yes.

17:36:08 17 Q Okay. And do you -- now, the Dr. Henry study
17:36:13 18 was with mainstream tobacco smoke, correct?

17:36:16 19 A Yes.

17:36:16 20 Q Do you have any personal knowledge regarding
17:36:19 21 any issue where the tobacco industry was not forthcoming
17:36:23 22 or straightforward with respect to environmental tobacco
17:36:26 23 smoke?

17:36:26 24 A Can you ask the question again.

17:36:42 25 Q Do you have any personal knowledge regarding
17:36:49 26 any instance where the tobacco industry was not
17:36:52 27 forthcoming or straightforward with respect to
17:36:55 28 environmental tobacco smoke?

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17:36:58 1 MR. McGUIRE: Compound as phrased.

17:37:00 2 Go ahead.

17:37:02 3 THE WITNESS: It's -- we talked about I think
17:37:04 4 in my first deposition, and it's in my file, that my first
17:37:10 5 study, I suggested to CIAR involve environmental tobacco
17:37:18 6 smoke, and was not funded. It's also on record that I did
17:37:23 7 not know whether this was a dual review process. I
17:37:26 8 assumed it was. And if so, at what level the study was
17:37:33 9 nixed.

17:37:36 10 BY MR. KODSI:

17:37:38 11 Q Is that study that -- well, before I ask a
17:37:40 12 follow-up question, do you have any other examples?

17:37:42 13 A No.

17:37:43 14 Q Okay. The study you just mentioned that was
17:37:45 15 not funded by the CIAR, is that the only -- is that the
17:37:48 16 only study you've ever submitted to a funding agency that
17:37:50 17 was not funded?

17:37:51 18 A No.

17:37:51 19 Q All right. You've submitted -- how many
17:37:55 20 studies do you think you've submitted or grant proposals
17:37:59 21 have you submitted to funding agencies that were not
17:38:02 22 funded?

17:38:02 23 A 20. 15, 20.

17:38:04 24 Q And some of those are to governmental
17:38:06 25 agencies?

17:38:09 26 A All of them are government agencies.

17:38:11 27 Q Some to state government? Some to federal
17:38:16 28 government?

Vail, Christians & Associates (619)544-8344 619

17:38:16 1 A No state government. It was NIH and EPA.

17:38:25 2 Q And just because someone doesn't fund your
17:38:29 3 study, that doesn't mean they're trying to withhold data,
17:38:33 4 does it?

17:38:33 5 A The reason the study was not funded was
17:38:37 6 because I was going to deal with, quote, unrealistic
17:38:42 7 concentrations of tobacco smoke.

17:38:44 8 Q How do you know that was the reason?

17:38:48 9 A The critique of this study is in my file.

17:38:54 10 Q All right.

17:38:55 11 A And it probably could be found out who wrote
17:38:59 12 this critique.

17:39:00 13 Q That was one of the reasons that was cited to
17:39:02 14 you in your file, correct?

17:39:04 15 A Pardon me?

17:39:05 16 Q That was one of the reasons that was cited to
17:39:07 17 you?

17:39:07 18 A Yes.

17:39:07 19 Q Are you aware of all the reasons that it
17:39:11 20 wasn't funded?
17:39:13 21 A All I had was the written critique.
17:39:17 22 Q And you did receive some funding by CIAR,
17:39:22 23 correct?
17:39:22 24 A I submitted the different proposal.
17:39:25 25 Q And it was funded?
17:39:26 26 A It was funded without review.
17:39:28 27 Q And your own personal experience with CIAR,
17:39:32 28 we covered in great detail in the first deposition, is
Vail, Christians & Associates (619)544-8344 620
17:39:34 1 that they never asked you to withhold any data, correct?
17:39:37 2 A That's correct.
17:39:37 3 Q And they encouraged you to publish everything
17:39:39 4 you found?
17:39:40 5 A Yes.
17:39:40 6 Q Okay. You made a comment about the R.J.
17:39:44 7 Reynolds web page when you were talking to Mr. Cafferty
17:39:48 8 about acknowledging something, and I couldn't tell if you
17:39:51 9 had a criticism about something you read in the R.J.
17:39:53 10 Reynolds web page or you thought you saw something that
17:39:57 11 you liked in the R.J. Reynolds web page? Do you remember
17:40:00 12 that conversation?
17:40:04 13 A The R.J. Reynolds page?
17:40:06 14 Q You were talking about the R.J. Reynolds web
17:40:08 15 page, and you said that now they're acknowledging certain
17:40:11 16 issues.
17:40:11 17 A Yes.
17:40:11 18 Q But you didn't finish your -- is that -- do
17:40:14 19 you have a criticism there of the R.J. Reynolds web page,
17:40:18 20 or is that something you were happy to see?
17:40:21 21 A It didn't really matter to me what's there.
17:40:26 22 Q Okay. But it -- as we sit here today -- and
17:40:30 23 I know you testified earlier that you hadn't read
17:40:33 24 thoroughly through. But as we sit here today, you don't
17:40:36 25 have any opinions that you intend to testify about with
17:40:38 26 respect to the R.J. Reynolds web page?
17:40:42 27 A I assumed that I was going to testify based
17:40:48 28 on my scientific knowledge. The Reynolds web page is not
Vail, Christians & Associates (619)544-8344 621
17:40:54 1 exactly something I considered to be science.
17:40:57 2 Q Understood.
17:40:59 3 MR. KODSI: That is all I have.
17:41:04 4
17:41:04 5 EXAMINATION
17:41:04 6 BY MR. MCGUIRE:
17:41:04 7 Q I want just to ask you a couple questions,
17:41:07 8 Doctor. And this is going to be a little awkward. So you
17:41:10 9 kind of have to look at Mr. Kodsi while I'm asking you
17:41:13 10 questions.
17:41:14 11 549, Exhibit 549, the Philip Morris -- what
17:41:22 12 was referred to as the Philip Morris web page, by
17:41:26 13 Mr. Cafferty.
17:41:27 14 I don't remember his exact question, but it
17:41:33 15 was something like did you find anything inaccurate when
17:41:36 16 you looked through that document? Do you remember that
17:41:38 17 line of questioning?
17:41:39 18 A I remember that line.
17:41:40 19 Q Okay. Did you review this for purposes of
17:41:42 20 determining whether anything that was said in there was
17:41:44 21 accurate or inaccurate?
17:41:46 22 A No.
17:41:46 23 Q Okay. Have you had a chance to look at this

17:41:51 24 in sufficient detail to go line by line right now and
17:41:54 25 point out to us without any prompting what points may be
17:41:57 26 accurate or inaccurate?
17:41:58 27 A No.
17:41:58 28 Q Okay. When you said you had -- you
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17:42:05 1 recognized or you felt the feeling of deja vu, do you
17:42:09 2 remember that testimony?
17:42:10 3 A Yes.
17:42:11 4 Q Okay. Deja vu usually means I see it now and
17:42:15 5 I know I've heard it some other place before. Is that how
17:42:18 6 you use the word deja vu?
17:42:22 7 A It does in this particular context. It
17:42:25 8 implied, oh, not again.
17:42:27 9 Q Okay. Where was the other times that you
17:42:29 10 had seen the type of I'll call it arguments that are made
17:42:33 11 in the Philip Morris web page information which is C-IR-1
17:42:40 12 through 11?
17:42:41 13 MR. CAFFERTY: Objection; vague and
17:42:44 14 ambiguous. Mischaracterizes the document.
17:42:46 15 BY MR. McGUIRE:
17:42:46 16 Q Okay.
17:42:46 17 A Okay. This -- all that's said here I really
17:42:56 18 saw in one form or the other when the 1992 EPA report came
17:43:01 19 out.
17:43:01 20 Q Okay.
17:43:02 21 A This was almost an immediate reaction to this
17:43:05 22 report being released.
17:43:06 23 Q Okay. Had you seen it at any other time or
17:43:10 24 have you seen it any other time since right after the 1992
17:43:14 25 Cal EPA report came out?
17:43:17 26 A It was in 1972 -- 1992 EPA report. Yes, the
17:43:22 27 same arguments then came up again when we had -- when we
17:43:26 28 reviewed the ETS document produced by the Cal EPA.
Vail, Christians & Associates (619)544-8344 623
17:43:33 1 Q Okay. You also said, going now to the other
17:43:41 2 information. What was that other exhibit that you had?
17:43:46 3 Oh. This document here, the -- we'll call them outlines
17:43:54 4 for presentation that was entitled, "ETS Exposure & Lung
17:43:57 5 Cancer Scientific Evidence - 1998." And it's on Philip
17:44:03 6 Morris letterhead.
17:44:04 7 Your answer there was you didn't recall if
17:44:09 8 you saw anything accurate or inaccurate -- inaccurate I
17:44:13 9 think was the answer.
17:44:14 10 Do you remember that line of testimony?
17:44:16 11 A Yes.
17:44:16 12 Q Did you read this document for purposes of
17:44:18 13 determining whether anything that was said there was
17:44:21 14 accurate or not?
17:44:22 15 A No.
17:44:24 16 Q Okay. Did you read the document in terms of
17:44:27 17 being able to respond with opinions as to whether what was
17:44:30 18 said there was true, accurate, or not?
17:44:33 19 A No.
17:44:33 20 Q Okay. Is it equally accurate for you to tell
17:44:38 21 me whether or not when you reviewed this whether
17:44:42 22 everything in that document was accurate or not?
17:44:45 23 MR. CAFFERTY: Objection; leading.
17:44:48 24 THE WITNESS: Can you --
17:44:49 25 MR. CAFFERTY: Vague and ambiguous.
17:44:50 26 THE WITNESS: -- ask the question -- yes.
17:44:52 27 BY MR. McGUIRE:
17:44:52 28 Q You want me to rephrase the question?

Vail, Christians & Associates (619)544-8344 624

17:44:55 1 A Yes.

17:44:57 2 MR. McGUIRE: Okay. Both of you, it appears,

17:45:00 3 agree that the question should be rephrased.

17:45:02 4 BY MR. McGUIRE:

17:45:02 5 Q Okay. When you read the document, this

17:45:04 6 particular exhibit, did you reach any opinion or

17:45:06 7 conclusion one way or the other about the accuracy of the

17:45:10 8 statements made in the document?

17:45:12 9 A I thought many statements made in this

17:45:15 10 document were exactly the same as had been made in what

17:45:21 11 you call the Philip Morris website.

17:45:24 12 Q Okay. But as far as accuracy is concerned,

17:45:26 13 did you read it for that purpose or reach any conclusions

17:45:29 14 regarding accuracy?

17:45:30 15 A No.

17:45:30 16 Q Okay. That's all I have.

17:45:32 17 MR. CAFFERTY: Just a couple of final

17:45:34 18 questions.

17:45:36 19

17:45:36 20 FURTHER EXAMINATION

17:45:36 21 BY MR. CAFFERTY:

17:45:36 22 Q In reviewing the ETS report that Mr. McGuire

17:45:41 23 was just asking you about, the title page of which appears

17:45:43 24 in Exhibit 549, the 1998 report, how much time did you

17:45:49 25 spend reviewing that?

17:45:51 26 A Not very much, because, again, I thought I

17:45:55 27 was supposed to review scientific information. And a

17:45:58 28 slide show is not scientific information.

Vail, Christians & Associates (619)544-8344 625

17:46:01 1 Q Did you spend more than an hour reviewing it?

17:46:03 2 A No.

17:46:03 3 Q Did you spend more than 30 minutes reviewing

17:46:07 4 it?

17:46:07 5 A About 30 minutes.

17:46:08 6 Q Okay. In reviewing the what's been termed

17:46:12 7 the Philip Morris website that appears in Exhibit 549, how

17:46:17 8 much time did you spend reviewing that?

17:46:19 9 A About 15 minutes to half an hour.

17:46:22 10 Q 15 minutes to half an hour. With respect to

17:46:25 11 that website, do you know when that was written?

17:46:28 12 A No.

17:46:28 13 Q Do you know when it was published for the

17:46:31 14 first time?

17:46:34 15 MR. McGUIRE: Published on the website?

17:46:36 16 BY MR. CAFFERTY:

17:46:36 17 Q In any form.

17:46:37 18 A No. I can, however, there are certain

17:46:41 19 statements in there I could tell you exactly when they

17:46:44 20 were published.

17:46:45 21 Q Okay. I'm not talking about statements in

17:46:48 22 there. I'm talking about that document itself as a

17:46:50 23 document, as a whole.

17:46:51 24 A Oh.

17:46:52 25 Q Do you know when it was published?

17:46:53 26 A No.

17:46:53 27 Q Okay. Now, during the course of the

17:46:56 28 deposition today, did you have any occasion to discuss

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17:46:59 1 your testimony with Mr. McGuire?

17:47:03 2 A Over lunch.

17:47:03 3 Q Any other times?

17:47:04 4 A No.

17:47:05 5 Q Okay. And what did you discuss over lunch?
17:47:07 6 A What I have done so far, how it went.
17:47:11 7 Q And what did he tell you?
17:47:13 8 A Fine.
17:47:14 9 Q And what did you --
17:47:15 10 A And the other thing is not to lean back
17:47:17 11 because I'm on tape.
17:47:18 12 Q Okay. Is there anything else that you
17:47:20 13 discussed over lunch?
17:47:21 14 A Don't interrupt as long as you're being asked
17:47:24 15 questions.
17:47:24 16 Q Anything else?
17:47:25 17 A That's it.
17:47:26 18 MR. CAFFERTY: Okay. That's all I have.
17:47:27 19 MR. McGUIRE: Okay.
17:47:28 20 MR. CAFFERTY: Thank you very much.
17:47:32 21 VIDEOGRAPHER: This concludes the
17:47:33 22 deposition. We are off the record at 5:47.
17:47:33 23 (Whereupon, at 5:47 p.m. the proceedings were
17:47:33 24 adjourned.)
17:47:33 25 * * * * *
26
27
28

Vail, Christians & Associates (619)544-8344 627
17:47:33 1 I hereby declare under penalty of perjury that
17:47:33 2 the foregoing is my deposition under oath; that these are
17:47:33 3 the questions asked of me and my answers thereto; that I
17:47:33 4 have read my deposition and have made the necessary
17:47:33 5 corrections, additions or changes to my answers that I
17:47:33 6 deem necessary.
17:47:33 7 In witness thereof, I hereby subscribe my name,
17:47:33 8 this _____ day of _____ 2000.
17:47:33 9
17:47:33 10
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17:47:33 28

Dr. Hanspeter Witschi

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17:47:33 1 STATE OF CALIFORNIA)
17:47:33 : SS.
17:47:33 2 COUNTY OF SAN DIEGO)
17:47:33
17:47:33 3

17:47:33 4 I, Margaret A. Smith, CSR No. 9733, hereby certify
17:47:33 5 that I reported in shorthand the above proceedings on
17:47:33 6 Thursday, June 29, 2000, at 550 West C Street, Suite 550,
17:47:33 7 in the City of San Diego, County of San Diego, State of
17:47:33 8 California; and I do further certify that the above and
17:47:33 9 foregoing pages, numbered from 420 to 627, inclusive,
17:47:33 10 contain a true and correct transcript of all said
17:47:33 11 proceedings.

17:47:33 12 It was stipulated that the original deposition be
17:47:33 13 delivered to Dr. Hanspeter Witschi, for the purpose of
17:47:33 14 having the witness read, correct and sign his deposition
17:47:33 15 under penalty of perjury; said original thereafter to be
17:47:33 16 maintained by Mr. McGuire until the time of trial.

17:47:33 17 DATED: JULY 9, 2000.

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MARGARET A. SMITH
CSR NO. 9733

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Vail, Christians & Associates (619)544-8344

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